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ANALYSIS OF STORY RETELLING AS A MEASURE OF THE EFFECTS OF ETHNIC CONTENT IN STORIES. FINAL REPORT.

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THE PURPOSE OF THE STUDY WAS TO EXAMINE THE PSYCHOLOGICAL IMPACT OF STORIES AND STORY BOOKS ON 142 PRESCHOOL CHILDREN INCLUDING 46 NEGROES (N.Y. AND CALIF.), 22 PUERTO RICANS (N.Y.), 10 MEXICANS (CALIF.), 16 SIOUX (S. DAKOTA) AND 48 NAVAJO (ARIZ. - N. MEXICO) BY MEANS OF STANDARDIZED RETELLING OF STORIES. A FURTHER AIM WAS TO DISCOVER PATTERNS OF LANGUAGE PERFORMANCE AMONG THE FIVE DIFFERING ETHNIC GROUPS. THE INVESTIGATORS RECRUITED AND TRAINED TWELVE RESEARCH ASSISTANTS OR LIBRARIANS WHO WERE COLLEGE STUDENTS. EACH LIBRARIAN WAS PROVIDED WITH A STANDARD KIT OF TEN BOOKS OF THREE TYPES (1) BOOKS OF ETHNIC IDENTIFICATION, (2) NON-VERBAL BOOKS, AND (3) CLASSIC CHILDREN'S BOOKS. DURING THE LAST PART OF THE PROGRAM, THE LIBRARIANS READ ABBREVIATED VERSIONS OF TWO SELECTED STORIES TO THE CHILDREN AND HAD EACH CHILD RETELL BOTH STORIES. IT SEEMED THAT THE INCLUSION OF ETHNIC BOOKS IS USEFUL IN A PROGRAM AIMED AT NON-WHITE CHILDREN. (COD)

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ANALYSIS OF STORY RETELLING AS A MEASURE OF THE EFFECTS OF ETHNIC CONTENT IN STORIES

A Study of Negro, Indian and Spanish-American Children

Office of Economic Opportunity Research Project No. 577

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NEW YORK, NEW YORK

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ANALYSIS OF STORY RETELLING AS A MEASURE OF THE EFFECTS OF ETHNIC CONTENT IN STORIES

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Yeshiva University

Final Report

Office of Economic Opportunity Grant #577

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VPJ and TDB

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Introduction

The fostering of language skills is given serious attention in all our compensatory programs for disadvantaged children.

Although the literature on language acquisition in young children is extensive, most of the old, and many of the more recent studies, are dominated by what might be called "a single word" approach. The measuring of children's language skills by means of vocabulary tests is one example of this tradition. Related to the lack of attention given in past research to sequential speech as a measured response, is a similar flaw in the choice of stimuli used to elicit speech on the part of young children.

It was the purpose of this investigation to examine the psychological impact of stories and story books upon pre-school children drawn from a variety of ethnic backgrounds by means of standardized retelling of the stories. The selection of a research problem of this type was motivated by theoretical as well as practical considerations.

Traditionally, a series of unrelated stimulus words, pictures, or objects are used in measuring children's verbal skills. Both the input and the output produced by these methods may be unrepresentative of the process of verbal communication and language learning. Young children listen to, and acquire language, when exposed to the flow of speech of those around them. One of the ways in which their language, and imagination, is stimulated is by being told tales, or being read to. It seemed that a meaningful way of gathering representative samples of children's sequential speech might be through a standardized 'story retelling' technique. Such a technique (to be described in detail below) is suitable for minority, non-English speaking, or bilingual children; as well as for children raised in urban middle-class environments. The examination of the transformations that the stories undergo when retold by children, it was projected, might reveal the patterns of variations for the children with varying degrees of experience with language.

Much of the current emphasis upon language enrichment in pre-school and compensatory programs is based upon the findings, summarized by Cazden as follows: "on all the language measures, in all the studies, the upper socio-economic status children, however defined, are more advanced than the lower socio-economic status children. However, in some studies, certain non-verbal measures fail to reveal social class differences." (1) There has been considerable evidence, though perhaps overstated in the quoted summarization, that low-income children are deficient in verbal skills. However, most of the studies are based upon English-speaking Negro and white children, residing in urban centers. There has been limited information to date concerning the language skills of other minority, low-income children in the USA.

One of the broad objectives of this study was as follows: to discover whether the standardized story retelling technique could be used to gain language samples from young low-income children drawn from a variety of ethnic and language backgrounds; rural, as well as urban. By discovering whether this method was applicable to gathering sequential samples from children raised under such widely varying circumstances, we hoped to perfect a tool optimally suited for monitoring changes in language skills as a function of educational intervention.

Most of the crucial problems related to language enrichment in pre-school classrooms are a source of debate. Psychologists and linguists have reached no consensus on a workable plan of intervention, thus, the classroom educator often has to experiment on his own. One of his concerns relates to the use of books as a medium of directed growth. There is a recurrent controversy which relates to the types of books and stories of greatest intrinsic interest to children raised in poverty: Do children respond with greater attentiveness, accuracy of detail, and general pleasure, to stories with heroes representing their own ethnic groups, as contrasted with animal stories, or heroes drawn from the mainstream of American life?

In this investigation, we were concerned with the use of books relative to these questions in pre-school classrooms. We approached these questions in a variety of ways.

First, the use of books in Head Start programs, representing widely divergent ethnic communities, were examined. Careful observations were made concerning the effectiveness of different types of books with children drawn from rural and urban, Negro and Indian, Mexican and Puerto Rican communities.

Second, the impact of story books of differing ethnic content was examined in a controlled manner. The question whether children retell with more accuracy a story set in a familiar context in contrast with an unfamiliar setting was explored.

Third, this study was aimed at discovering patterns of language performance, as measured by the story retelling technique among five groups of pre-school children: Negro, Puerto Rican, Mexican-American, Sioux Indian, and Navajo. In view of the wide scope of the current pre-school programs, it seemed imperative to gather as much data concerning young children enrolled in these programs as was compatible with the major goals of this study, and feasible within the time limitations of this investigation. A particular stress was placed upon the gathering of background information concerning American Indian children because of the paucity of extant information.

I. STUDY PLAN

Soon after the establishment of Child Development Centers for the summer of 1965, it became clear that an unprecedented cross-section of American children of widely divergent ethnic backgrounds would be enrolled in pre-school classrooms. There were, at that time, but limited professional personnel who could serve in a research capacity in these centers, though precise information was badly needed concerning this heterogenous population. And therefore, the investigator decided to train a number of young women to assume a combined role of librarians and research assistants. Whereever possible these students were drawn from the ethnic community to be serviced by a center. They were trained to gather background materials, interview parents, and work with teachers by engaging in a variety of activities related to stories and books in these programs.

Twelve 'librarians' started working with Head Start children during the second week of the 1965 summer program in New York, South Dakota, and California. During the first few weeks of the program the librarians got to know the children, read them stories, and gradually oriented them to the story-retelling routine.[1] During this period the librarians also assembled a complete file on each child participating in the study. The study children consisted of the entire enrollment of the class to which the librarian was assigned. A special kit of books was selected and given to each librarian, who collected information concerning the children's reactions to the books, and recorded them on a standard form.

During the second half of the summer program, the librarians worked with each of the children individually. All of the children were first read Curious George, by H.A. Rey, and told to retell it. Then half of the children were selected at random and were read One of These Days (a book specially commissioned for this study) set in their own ethnic background. The other half of the children were read the story set in an ethnically unfamiliar environment. One of These Days, written by Charlotte Pomerantz, deals with subject matter familiar to most young children. The setting of the story is a crowded dwelling unit. The opening action deals with a father telling a boy a story about the moon and lamenting the crowded conditions of their home. The boy then falls asleep and dreams a fantasy story about the moon, only to be awakened by the cries of his baby sister whome he quiets with his own story. Originally a set of three versions of this story were prepared, differing only in ethnic identification. The groups represented were Negro, Indian, and Mexican. Pictures were commissioned to accompany the texts, --the Mexican illustrations were not usable, however. Thus, two identical stories with differing sets of illustrations were used for the story retelling part of this study.

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[1] In some instances, unexpected demands were made of them. One of the Spanish-speaking 'librarians' in New York City gathered all the data on the children enrolled in her center who did not speak English for the national evaluation study, because of the severe shortage of trained, Spanish-speaking personnel.

The procedure for the story retelling was as follows: First the librarians read to the children individually while the children looked at the corresponding pictures. After the reading was finished, the subjects were given the pictures without the text, and asked to retell the story by means of the pictures. Each picture was shown separately, and in its proper sequence. The whole session was taped in the language of the child's choice.

The transcriptions thus obtained have been analyzed to examine a) the impact of differing ethnic context upon story retelling, and b) the language patterns of young preschool children drawn from a variety of ethnic communities. The transcribed stories were analyzed both for quantitative and qualitative features.

Most of the material was gathered during the summer Head Start program of 1965. The remainder of the material was collected on the Navajo reservation during the subsequent nine months.

II. DATA COLLECTION - Summer 1965

It is difficult to describe the early stages of this research project without deviating from the traditional style of research reports. The early months of the Head Start period were full of delightful surprises and difficulties familiar to all who have worked in the newly established Child Development Centers.

The study plan called for a selection of 12 centers (representative of the major ethnic groups) by the second week of the program. By the third week all librarians were to be working in the centers. However, an adequate choice of the centers representative of Negro, Indian, Puerto Rican and Mexican children was impossible without demographic information concerning pupil enrollment, socio-economic status of parents, etc. Thus, we proceeded in our selection by relying upon common sense.

Because of the uneven rate at which we were choosing centers outside of New York, and finding staff for them, we could not work with a balanced sample of children in this study. The summer population was skewed in favor of urban Negro children, (4 classes.) Two classes of Puerto Rican, Sioux Indian and Mexican-American children were tested by the end of the summer. The N's for these groups were still unequal because of the varied field conditions in the different centers.

Though the initial plan was to include both Sioux Indian and Navajo children in the summer study populations, this plan was not immediately realized, because the large scale Navajo pre-school project did not begin until October of 1965. The network of tribal Head Start programs offered a truly unusual opportunity for research, which we felt it important to utilize, though extending the research project to these centers threw off the original time-table. The change was well worth the effort. Consequently, the data collection had to proceed in two stages: the initial phase during the summer of 1965, the second phase from the fall 1965 to the spring of 1966.

The description of centers selected for this study is given below. In New York, where we had maximum choice, we selected two community-based programs (Haryou and Bloomingdale) and two Board of Education sponsored programs. The librarians worked in two classes of PS 15, a school situated in the Puerto Rican community, all the Puerto Rican children tested in this study were drawn from that school. Many more centers were available, but because of a shortage of bilingual librarians, we had to be selective in choice of study-sites.

The recruitment of research assistants ('librarians') was difficult because of the time limitations under which we labored. In spite of the pressure under which we were working, the group of college students eventually hired were very able. Indeed, one of the most important lessons of this study was the recognition that students drawn from the ethnic community which is the focus of a research effort are invaluable assets in such an enterprise. The magnitude of the cultural barrier that psychologists and educational researchers encounter, when working in low-income and tribal communities, is often underestimated. Therefore, it is important to develop new forms of research cooperation, and the one we chose to follow in this project proved to hold much promise.

Our success in recruiting a multi-ethnic, multi-lingual research staff was due to the marvelous cooperation rendered to us by many individuals. Special thanks are due to Mr. Sam Deloria of Pierre, South Dakota, and Mr. Peter McDonald of Window Rock, Arizona for their assistance in locating Sioux and Navajo college students. Indeed, the spirit of enthusiasm and cooperation on the part of teachers, center directors, and OEO officials during these early days of the Head Start program was truly remarkable.

Training Sessions

Once the initial staff was assembled, training sessions were held in three different localities: New York City, Pierre, and San Francisco. The sessions consisted of instruction in the story re-telling technique, instruction in collecting behavioral observation data, and interviewing parents. Problems of chosing the appropriate language for testing bilingual students were also discussed.

The New York City research staff, including the librarians, participated in some additional activities. They helped in chosing the book kit to be used by all librarians, they constituted themselves into and informal editorial board, and simplified the original version of One of These Days. This experimental story was written especially for this project (much to the chagrin of its author, Charlotte Pomerantz.)

The librarians shared in the pace of preparation, a pace which meant that Miss Pomerantz had to write a story in less than a week, that artists had to submit drawings prepared in a couple of days, that equipment had to be purchased, and reproductions had to be obtained at breakneck speed.

A. Design of the Study

1. Description of the Centers

The children serving as subjects in this project attended Head Start preschool centers in New York, California, South Dakota and Arizona-New Mexico. A total of twelve centers was represented.

Head Start center locations were chosen in order to include areas with high concentrations of selected ethnic groups.[1]

a. New York

Four New York Head Start Centers were used during the summer of 1965. These were located on the upper West Side of Manhattan (Bloomingdale Project), P.S. 90 (Harlem), Haryou Center (Harlem), and P.S. 15 (Lower East Side). Enrolled in each class on either full or half session were from 10 to 25 children. There were one or two teachers, one or two paid aides, and in some classes, volunteers and/or parents.

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[1] Because of the time limitations for this study, the centers were selected for convenience as well as representativeness.

The two Harlem centers were similar as to ethnic composition (Negro) and the socio-economic status of the students ("lower class"). The "Bloomingdale" center, while ethnically similar to P.S. 90 and Haryou, was socio-economically higher ("upper-lower class"). P.S. 15, the center on the lower East Side, was composed mainly of bilingual Puerto Rican children, many of whose parents were unemployed and receiving welfare payments, making this a center of mostly "lower-lower class" children.

b. California

Two Head Start Centers were selected in California during the summer of 1965.

The Indio Head Start Center was composed mainly of Mexican-American lower class children, most of whom were English-speaking. In Sausalito, the children were Negro, and covered a wide range of social classes, extending from "lower-low" to "middle class".

c. South Dakota (Sioux Indian)

Rapid City and La Plant were two South Dakota centers with heavy enrollment of the Sioux Indian children. During the summer of 1965, the Rapid City Center included some Mexican, Negro and white children, as well as urban Sioux children; the La Plant center was composed solely of rural Sioux Indian children on the Cheyenne River Reservation. All the South Dakota children were fluent in English. In Rapid City, the classes of 14-18 were held on half-session. There was generally one teacher and two volunteers per class. The average socio-economic status of the children was "lower-class". In La Plant, 14 children attended the pre-kindergarten class which was held on half-session. There was one teacher, a paid aide, and two volunteers in the class. This group had the lowest average socio-economic status level of all our groups; most of the parents were unemployed.

d. Arizona-New Mexico (Navajo study)

This part of our study started in October, 1965, and was completed in May of 1966.

In the Arizona-New Mexico centers, all of which were part of the Navajo Indian Reservation, the children represented had the greatest population variations within the Indian samples. These centers were located at the towns of Shiprock and Chinle; and the rural villages of Greasewood and Many Farms.

In Shiprock, New Mexico, the primary language of many of the children was Navajo. There were two male teachers, neither of whom were bilingual. The five female aides, however, were fluent in the Navajo language and also spoke some English. Shiprock was one of the larger reservation communities, with a population of 5,000, many of whom could neither speak nor read English. Although there were many children in the area, only 30 enrolled in the Head Start program, and many of these did not attend regularly due to a lack of transportation facilities.

34 children were enrolled in the Chinle Head Start programs. There was one teacher, three paid aides and a volunteer. The class was divided into two groups, one English-speaking and one Navajo-speaking. Chinle itself is a community of 500 inhabitants, the majority of whom do not speak English. Many of the people have either a very low income, or are unemployed, the result being that a large percentage of the population are recipients of welfare payments. The majority of children enrolled in the pre-school live within one mile from the center. These are generally the children who will attend school regularly and take full advantage of opportunities offered them. Their parents are over the poverty line in income. Those living in secluded areas are not able to attend school or other community functions, due to poor road conditions.

The Greasewood community has a population of 1,000, many of whom are employees of the Federal Schools in the area. Those living in the immediate area of Greasewood speak English, although many are bilingual. Individuals living outside the area speak mainly Navajo. There were over 64 children enrolled, divided into two groups of those who live in the community and speak English, and those who ride the bus to school and speak Navajo. There are two teachers, one of whom speaks Navajo, and six aides.

Many Farms, Arizona, was the smallest Navajo community used in this study. It has a population of 500, the majority of whom speak Navajo and are of very low socio-economic status. Many of the parents whose 30 children were enrolled in Head Start were employed by the Federal Government, and consequently spoke English and were of a higher social class than others in the community. The pre-school class, supervised by a teacher and aides, was largely split into those children whose only language was Navajo, and those whose only language was English.

2. Subjects

a. Ethnic group membership

The subjects in this study were members of one of five ethnic groups: There were 46 Negro children enrolled in New York and Sausalito California preschools, 22 Puerto Rican subjects in New York, 10 Mexican-American children in California, 16 Sioux and 48 Navajo children; for a total of 142 subjects, including 72 boys and 70 girls.

b. Language

Many of the subjects were bilingual or did not speak English. One-third were administered standard tests and the experimental task in languages other than English (Spanish and Navajo). The children were encouraged to choose the language in which they felt most competent.

c. Age

The children in this study ranged in age from 3.5 to 6.5 years. No child with previous pre-school experience was included. The majority of children were five years old at the time of testing, and were divided into four age groups: under 4 years, 7 months; 4 years, 7 months to 5 years, 2 months; 5 years, 2 months to 5 years, 9 months; and over 5 years, 9 months. Numbering these groups 1,2,3, and 4, there were 4 children in group 1, 39 in group 2, 58 in group 3, and 40 in group 4.

d. SES

The socio-economic status of each child was determined by using a modified form of the socio-economic status scale developed at the Institute for Developmental Studies, New York University, utilizing the Empey Scale of occupational prestige. The large majority of study children were drawn from low income non-white families, thus the traditional designations of low, middle and upper class or of SES I, II, and III were too inclusive for this group of subjects. Therefore, while class determination was based upon occupation and education of the main support of the family, group I signifies only those children whose families received the bulk of their income from public assistance, the head of the family usually being unemployed. Group 2 includes those children whose parents had not completed any high school, who were laborers, unskilled or semi-skilled workers, job trainees or domestic servants, but were not receiving public assistance. Group 3 includes those subjects whose parents had at least some high school education or better, were employed as skilled laborers or low level white collar workers. Group 4 included those children whose parents had completed some college and were employed as highly skilled technical workers, high level white collar workers, or held professional jobs. There were 34 subjects in group I ("lower-lower class"), 80 in group II ("lower class"), 21 in group III ("upper-lower class"), and 7 in group IV ("middle class"). (See Table I below)

e. Birth Order

Although we had originally planned to collect data as to the birth order of each subject, we found that this information was lacking on over 12% of our subjects. Of the remaining group, the distribution was one-third first borns, and two-thirds latter borns.

TABLE I

Demographic Characteristics of Study Subjects

A. Ethnic Membership

46 Negro (New York and California
22 Puerto Rican (New York)
10 Mexican (California)
16 Sioux (South Dakota)
48 Navajo (Arizona-New Mexico)

B. Language

96 English
46 Non-English
    17 Spanish
    29 Navajo

C. Age

5 under 4 years, 7 months
39 4 years, 7 months to 5 years, 2 months
58 5 years, 2 months to 5 years 9 months
40 over 5 years, 9 months

D. Sex

72 Male
70 Female

E. Socio-economic-status

34 SES I
80 SES II
21 SES III
7 SES IV

F. Birth Order

33 First born
    (9 Only-children)
91 Latter born
18 Insufficient information

3. Librarians

College students were trained as "librarians",[1] and each was assigned to one center, or in the case of the Navajo reservation, to a group of centers. They were responsible for administering Head Start tests, noting reactions of the children to various books, recording information that pertained to the classroom reading, and conducting interviews with parents and teachers. Librarians of the same ethnic background as the children were chosen where possible. It was also necessary that the librarians working with Puerto Rican, Mexican or Navajo children be fluent in Spanish or Navajo as well as in English.[2]

4. The Design of Study Tasks

An important part of this study was the construction of new techniques aimed at obtaining information about the young preschool children starting in the child development centers. Some existing instruments were modified to this end. The problem so many researchers faced was that the most popular tests in use for children below school age were inappropriate for this population. Most of these tests were standardized on middle-class children (with only a sprinkling of low-income children included), and few, if any, of the tests were aimed at non-English-speaking children raised in the poverty areas. In addition, the very procedures we traditionally rely upon while testing go counter to the experiences of many bilingual, minority group children. It is with these concerns in mind that we attempted to develop instruments to be used with children raised in highly divergent communities.

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[1] The students trained for this project attended to a variety of activities related to stories and books on these programs. Thence, their title.

[2] Lorene Bennett, Digna Sanchez, Hal Kirschbaum, Joan Stockton, Velois Cary, Rochelle Ducheneaux, Ruth Frailich, Marie Chee, Amy Krantz, Allen LeBeau.

a. The Story Retelling Technique

This technique is the central feature of this study. It is a task which was designed in the context of an earlier study by the author, but it is still in its developmental phase(5)The purpose of administering the story retelling task to children is to obtain a representative sample of sequential language. The analyses to be performed with such data are of wide diversity. Among these are formal, linguistic analyses as well as content and stylistic treatments. The task can be most broadly compared to attempts assessing cognitive style in children.

The choice of stories as stimulus materials are not accidental. Children respond to a sequential input differently from their responses to single word or phrase stimuli. Though level of verbal performance is measured by many tasks requiring but pointing or short responses, these approaches have serious shortcomings. It was our purpose to discover how a child selects from, and organized, the continuous flow of stimuli--a process which is truly representative of his everyday verbal environment. It is with this complex process in mind that the Story-Retelling Technique was developed.

The task and its administration were briefly described above. It was hypothesized in this study that systematic variation in response will occur when children were read a single story set in two different ethnic contexts. With this in mind, two versions of the same story were constructed which differed only in ethnic context as represented by the illustrations. It was hoped that the story One of These Days had a theme of cross-cultural significance. (See copy of story in the Appendix.) The illustrations were selected to depict, as faithfully as possible, two rather different environments. The Negro version of the story was set in a crowded city slum; the American Indian version endeavored to depict life on an Indian reservation. Though a third version, representing Mexican characters, had been prepared, it was not used, as the quality of the pictures was judged inferior. All subjects with the exception of the Sioux (due to time limitations) were divided randomly, into two groups, one was given the Negro version~~, and~~ the other, the Indian version.

During the early part of the study, the teachers and librarians read various books to the class as a whole, or to small groups of children. The children were encouraged to retell the stories, to dramatize them, or to draw pictures based upon their content. In the second half of the summer Head Start program (the experimental phase), the librarians read to each child individually, first an abbreviated version of H.A . Rey's Curious George, then One of These Days; using the same procedure for both. As the librarians read, the children looked at the corresponding pictures.[1]

Once the reading was completed, the subjects were given the pictures without the text. They were asked to retell the story by means of the pictures. Each picture was shown separately and in its proper sequence. The librarians were cautioned neither to prompt during the retelling, nor to comment on their own reading. Each librarian was equipped with a portable tape recorder used to tape both the original rendition of Curious George and One of These Days, and the child's retelling of both stories. The librarian transcribed the retellings onto 3x5 cards, one for each picture. The tapes and cards were mailed to the research staff at Yeshiva University, and rechecked for accuracy. Data sheets were developed for analysis as described below.

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[1] The story was bound in a loose-leaf binder, and thus the pictures could be pulled out easily.

The detailed analysis of the re-told stories was carried out only with the experimental story, thus, children were assessed on a performance with which they had some familiarity; this was evident in that the majority of children took less than eight minutes to retell the story to them.

The speech samples obtained under these conditions excelled the quality and quantity of speech productions of the same children in their classrooms. From this it would appear that the method of story retelling is a flexible approach to gathering linguistic samples from young, bilingual, economically disadvantaged children.

b. Behavioral Analysis

Though the major focus of this study has related to the gathering of language samples, it seemed reasonable to include some other measures of the subjects' behavior as well. The choice of the Operation Head Start Behavior Inventory was one of convenience. The Inventory was completed for each child by his teacher. In addition to the rating scale, the librarians were asked to describe the subjects in greater detail and comment upon salient features of behavior, intellectual, social or emotional development.

It was possible to compare some of the findings of this study, (as related to the correlation of social-emotional characteristics to verbal performance) with that of R. Hess as reported in "Techniques of Assessing Cognitive and Social Abilities of Children and Parents in Project Head Start." (4)

This questionnaire of fifty items was completed for each of 89 children by their teachers. Negro, Puerto Rican and Navajo ethnic groups were represented.

c. Peabody Picture Vocabulary Test

The Story-Retelling Task is a technique still in the process of development. In previous studies some inter-correlations have been gathered between this task and more standardized tests of verbal ability; a similar strategy appeared useful in this instance as well. Thus we chose the PPVT for inclusion in the test battery.

The librarians had no previous training in test-administration, thus PPVT scores were obtained from center directors wherever they were available. (In one center, we were able to have the subjects of this study specially tested by an experienced tester.)

d. Parent Interview

In this study, it was not possible to carry out intensive parent interviews. Consequently, we designed a very simple and short questionnaire, the purpose of which was to gather information concerning socialization patterns among low-income families. Of particular interest to us has been the question: what is the social network in which young low-income children are raised? Previous information pointed to the importance of siblings and cousins as nearly exclusive playmates of children raised in a ghetto housing project. (7) A recurrent concern to those who work in disadvantaged communities is the reliance upon young children for household help, a practice usually dictated by necessity. In this questionnaire we were tapping, indirectly, the parent's valuation of such responsibility on the part of their children. (See Appendix F.)

The 14-item scale ranged over following topics: a. Parent's perception of Head Start experience (including what their children may have told them about it.) b. child's social relationships within the family, c. parent's perceptions of child's verbal skills, and d. "what kinds of things does your child do that pleases you most?"

Originally, it was planned that the parents of all children included in this study will be interviewed by the librarians. Unfortunately, the time pressures were so enormous upon the summer 1965 Head Start staff, that they were unable to gather this information. Parent interviews have been collected by the Navajo staff.

e. 'Book kit'

Each librarian was provided with a standard kit of ten carefully chosen books; including:

The Cat in the Hat, Dr. Seuss
Curious George, H.A. Rey
Curious George Gets a Job, H.A. Rey
Gilberto and the Wind, Marie Hall Ets
Happy Birthday to You, Dr. Seuss
The Lion and the Rat, Brian Wildsmith
May I Bring a Friend, Beatrice Schenk de Regniers
Shapes, Miriam Schlein
Snail Where Are You?, Tomi Ungerer
Whistle for Willy, Ezra Keats

The kit was chosen so as to include three different types of books: books of ethnic identification, such as Whistle for Willie, and Gilberto and the Wind. These books have received much praise by teachers, and we were interested in comparing their impact with more traditional books. 2. Non-verbal books, such as Snail Where Are You? This type of book was recommended by some teachers, who thought that a lack of text is an advantage when working with young low-income children, and 3. classic children's books such as Curious George, Dr. Seuss' books, and the Lion and theRat.

It is possible, as some librarians have argued, that as a result of the growing concern with the disadvantaged child, and his special needs, educators have come to misjudge the appeal of 'good literature' i.e. the classics in children's stories. It is in view of such a concern that we have included different types of books in the experimental kit.

Librarians were asked to acomplete an observation scale after reading each of the kit books. (In some instances librarians had enough time to obtain individual as well as group reactions.)

In addition to the simple questionnaire aimed at recording the children's verbal and affective reactions to the pre-selected books, the librarians and teachers were also provided with a questionnaire designed to asses the popularity of all the books listed by the teachers as being available to the children.

III. DATA ANALYSIS

In this study information was gathered from children living and attending pre-school in widely different milieux. The complexity of such a research program creates a number of problems, specifically in the collection of data. At times one wonders how comparable is information gathered in this manner? For instance, work on the Navajo reservation was starting after all the other information had been collected. Every attempt was made to insure a standard procedure of data collection inspite of this diversity. We faced other problems; there was not enough time in some centers for the completion of all testing. This happened in southern California. The librarian made arrangements with the parents to complete the tapings, he was able to keep the school open for the necessary time, but all his efforts failed when he could not locate a school janitor.

Thus, the data we were collecting under these diverse field conditions arrived piecemeal; some of the early analyses revealed contradictory trends. The first task consisted in sorting the material.

A. Demographic Data

The following background characteristics were complete enough to be used in the quantitative analyses: Ethnic membership of the child, his age and sex, the child's prefered language in the testing situation, and his socio-economic status. The additional material which has been gathered, such as the size of the family, or living conditions in the community in which the center was situated, were too sketchy for inclusion into the quantitative analysis. Of value are the data gathered on the Navajo reservation (medical information, community characteristics, etc.); these will be summarized in a future article.

One trend did emerge concerning the study population, though the majority of the children were drawn from poor families, over one third did not fit this categorization. This is in line with similar results obtained by the national evaluation study of the first Head Start program.

B. Story-Retelling Task

Techniques similar to the experimental task in this study have been used in the past. Clinicians have looked at story-completion, and story telling as projective material. Their methods of analysis reflect this orientation. Currently, techniques are being developed to assess concept attainment via the retelling of short stories.

In this and previous studies by the author the emphasis has been to look at retold stories as patterned verbal output. The patterning is thought of as twofold: linguistic and cognitive. In other words, children transform the input story into their own phrases (reflecting their level of syntactical and vocabulary development). In addition, they selectively recall features of the original story, a process of cognitive import.

Originally, we intended to analyze the obtained material linguistically, and for 'cognitive style.' However, the incredible variability of the obtained stories - (retold in three languages, ranging from 10 phrases to 80 phrases) - made such a task too formidable for a one-year study. Detailed linguistic analyses are projected for future.

Instead, four types of analyses have been carried out:

1. Output

First, the protocols have been analyzed for output measures. The basic unit for all analyses is the phrase. In most instances this consisted of subject and predicate constructions. Pauses were used as one indicator of phrase boundaries. The length of pauses were measured and subsequently grouped by duration.

Some of the output measures in the analyses of the retold stories were number of phrases, total length of retelling time, and seconds per phrase.

TABLE II

Story Version, Sex, Age, Socio-Economic Status, and Test-Language of Subjects in Each Ethnic Group

Negro - N.Y. - 37	Negro - Calif. - 9	Total
18 Indian version	6 Indian version	24
19 Negro version	3 Negro version	22
20 Male	6 Male	26
17 Female	3 Female	20
2 Age 1	0 Age 1	2
15 Age 2	4 Age 2	19
12 Age 3	4 Age 3	16
8 Age 4	1 Age 4	9
4 SES 1	3 SES 1	7
21 SES 2	2 SES 2	23
11 SES 3	1 SES 3	12
1 SES 4	3 SES 4	4
11 First borns (inc'g 4 onlys)	2 First borns (inc. 4 onlys)	13
26 Latter borns	3 Latter borns	29
	4 Don't know	4

Puerto Rican - 22	Mexican - 10	Total
13 Indian version	6 Indian version	19
9 Negro version	4 Negro version	13
12 Male	5 Male	17
10 Female	5 Female	15
0 Age 1	1 Age 1	1
3 Age 2	3 Age 2	6
11 Age 3	4 Age 3	15
8 Age 4	2 Age 4	10
9 SES 1	2 SES 1	11
12 SES 2	6 SES 2	18
1 SES 3	2 SES 3	3
0 SES 4	0 SES 4	0
6 First born (inc. 4 onlys)	0 First born	6
15 Latter born	4 Latter born	19
1 Don't know	6 Don't know	7
7 Eng.	8 Eng.	15 Eng.
15 Span.	2 Span.	17 Span.

Sioux - 16	Navajo - 48	Total
16 Indian version	27 Indian version	43
0 Negro version	21 Negro version	21
4 Male	25 Male	29
12 Female	23 Female	35
0 Age 1	2 Age 1	2
2 Age 2	12 Age 2	14
5 Age 3	22 Age 3	27
9 Age 4	12 Age 4	21
8 SES 1	8 SES 1	16
7 SES 2	32 SES 2	39
1 SES 3	5 SES 3	6
0 SES 4	3 SES 4	3
4 First born	10 First born (Inc. 1 only)	14
5 Latter Born	38 Latter born	43
7 Don't know	0 Don't know	7
	19 Eng.	
	29 Navajo	

The variables of significance in assessing variation in these output measures were subject characteristics and task characteristics.

2. Accuracy of Retelling

This notion implies that the retold stories can be measured for the degree to which they replicate the stimulus story. In this study, the stories produced by the children were greatly abbreviated, and substantially modified. The choice of One of These Days a complex tale of considerable length militated against literal reproductions. Children averaged one, or at most two verbatim phrases from the original story in their retold version.

The lack of verbatim quotes does not imply, however, that the children made up new or unrelated stories from the one they have heard. Two measures were developed for counting the number of phrases produced by the children which were based on the story. (a) Stimulus-derived (SD) phrases, which reflect information present in both pictures and text of the story, (b) Story-relevant-inferre phrases (SRI) reflect information which could have been gained by the child only through the text, i.e. including only those story features which are not pictorially represented.[1]

It was assumed that the SRI items reflect a greater level of cognitive skill in retelling that the perceptually determined SD items. In examining the retold stories, variations in these distributions were tabulated and contrasted according to task characteristics (the ethnic setting of the story) and subject characteristics (such as age trends, socio-economic variables, ethnic factors.)

3. Story Style

The retold stories were analyzed according to a number of content measures. Of interest was the children's reliance upon dialogue in their retold versions. Another measure relates to sequencing, i.e. the important shift in the story from the family setting to the dream and back to the family again. These measures seemed important at a time when the data sheets were constructed, however, once the stories were analyzed, too few items fitted into each of these categories to yield a comprehensive picture. Instead, the following ratio measure emerged as useful: action versus descriptive phrases. The experimental story, like most stories written for children, is replete with action. The majority of the children reflect this story characteristic in their retellings; on the average, the ratio of action/descriptive phrases was two to one. However, the children who were least able to deal with this task, whose stories qualitatively appeared weakest, deviated from this ratio, in favor of more descriptive than action phrases. Often they just labeled the person, sometimes they described the objects in a particular picture, and occasionally their descriptions referred to a prevailing mood, or setting.

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[1] These distinctions were developed in cooperation with Mrs. Jane Ingling, and Miss Vivian Horner.

4. Interrelationship of Measures

While the major data analyses relate, in this study, to story impact and group variations in story-retelling performance, the technique itself has received some attention.

Reliability measures have been calculated between two sets of retold stories (Curious George and One of These Days). The question whether any of the quantitative measures of this task correlate with standard measures of verbal performance was asked. Only fragmentary data is available for meeting this concern; the PPVT was administered to approximately half of the sample, and intercorrelations were performed with the two sets of obtained scores.

Other, and perhaps theoretically more interesting calculations, were also performed. These relate to the pause analysis. Pauses were used as one indicator of phrase boundary. In addition, the length of pauses within and between phrases were measured and pauses were subsequently grouped as to short and long duration. The following question was asked: "Are type of phrases and pause length interrelated in some manner?" The hypothesis which was examined was not new: phrases which represent an active cognitive process are more likely to be preceded with long pauses than phrases of lesser cognitive demand. (Frieda Goldman-Eisler and Harry Levin have found such relationships.) In this study, the SRI and SD phrases are thought of as of differential level of cognitive complexity, and thus pause length and these two phrases were examined as to their interrelationships.

C. Head Start Behavioral Rating Scale

This questionnaire of fifty items was completed for each of 89 children by their teachers. Negro, Puerto Rican and Navajo children were represented. Each child was rated for every item on a four-point scale: very much like, somewhat like, very little like, not at all like, Five summary scores were obtained, based upon 20 items suggested by Hess in final report of his OEO Research Contract OEO-519. (See Appendix for items used.)

Those behavioral characteristics measured were Aggression, Verbal-Social Participation, Timidity, Independence and Achievement Motivation. A high summary score signified similarity or possession of the attribute, except for achievement motivation, where a low score indicated high motivation for achievement.

The summary scores for each subject were correlated with the following verbal measures: action phrases, descriptive phrases, story relevant inferred (SRI) and stimulus derived (SD) phrases, and PPVT scores.

Discussion of the methods of analysis of data gathered by means of the Parent Interview Forms, Book Kit and Book Questionnaires will be incorporated into the reporting of results.

IV. RESULTS

One of the questions asked in this study was the following: does the ethnic context of a story effect the child-listener? If so, is such an impact revealed in the way in which pre-school children retell a story set in two contrasting environments? The results show some trends, but are on the whole inconclusive.

By contrast, a number of interesting results have been obtained in the comparisons of retold stories by children, when compared according to ethnic membership. This information is particularly rewarding in view of the serious methodological, and data collecting problems one encounters in the gathering of comparable data from children of differing ethnic, linguistic, and geographic backgrounds.

The effect of story books upon young children was studied in a number of ways in this investigation. The observational data collected by the 'librarians' yielded a consistent picture. These results might have some practical applications for pre-school educators. Additional findings, to be described in detail below, are based upon the parent interviews, the behavioral observation scale, and the vocabulary test.

A. Story-Retelling Technique

1. Output Variables

Verbal skills are often equated with verbosity. Frequently, low-income children have been described as wordless, shy, non-verbal, withdrawn. In this study, fewer than ten out of the 142 children could be characterized in this manner. Our most interesting finding was that the vast majority of the low-income children tested, performed their verbal task in an active and participating manner.

Good participation on the part of these subjects may be due to two factors: the type of task administered (story-based), and the kinds of people who were testing the children. The children were familiar with the librarians by the time they were taped. Their apparent ease with the 'testers' might have been due to common ethnic membership, as well as familiarity. Ease in a testing situation is of particular importance to young Indian children, who tend to shy away from competitive situations.

The retold stories obtained in the three languages (English, Spanish, and Navajo) were transcribed onto ten 3x5 cards, each card corresponding to one story picture. The verbal output of the children, segmented in this manner, was further subdivided into phrase units. Phrases, as mentioned above, are units primarily defined by their pause boundaries. In many instances, children would utter a noun phrase, "James", repeat it, and then add "..and grass"; thus, they were simply chaining noun phrases. In other, and equally frequent instances, they would emit phrase units of 4-6 words without pausing (except for breath). It was difficult to apply a formal phrase analysis to these protocols, and thus the empirical criteria of pauses, minimal phrase units of meaning, and occasionally, stress contours were used for specifying phrase units.

The children's range in verbal output was considerable. Their answers ranged from none or a single phrase per picture to nine or more phrases per picture.

In the senior author's previous study of story retelling (5), the subjects were 1st grade Negro children ranging in socio-economic status from low-to-middle class. No significant relationships were found in that study between socio-economic status, sex and verbal output. Similarly, in a study by Deutsch, et al (2) output did not correlate with socio-economic status. In this investigation, age, sex, and socio-economic status failed to show significant variations with verbal output. The differences in output were striking, however, when children of differing ethnic backgrounds were compared. The Indian children, both Sioux and Navajo retold the story with significantly fewer phrases than the Mexican, Negro and Puerto Rican children. These differences were greatest when Negro and Navajo children were compared, (the former producing twice as many phrases, on the average.) See Table III for quantitative analyses.[1]

The length of time used for retelling was another measure. Linear time measurements, in absolute terms, parallel those of the total verbal output; Negro and Mexican children took longer to complete this task than the children

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[1] The analysis of the data consisted of correlational calculations, and analyses of variance. Because of the unequal cell units, a harmonic mean transformation was applied, and means were compared according to the Neuman-Keuls formula in all the ANOVA calculations.

TABLE III

Number of Phrases as a Function of Ethnic Group and Social Class Membership

A. ANOVA

Source	df	mss	F
A (Ethnic)	4	1207.674	8.727 (.001)
B (SES)	3	317.736	2.296
AXB	12	158.017	1.142
Within	122	138.386	

B. Test of Mean Differences

Treatments		Navajo	Sioux	Puerto Rican	Mexican	Negro
	Means	15.17	17.50	26.13	30.20	31.31
Navajo	15.17	---	2.33	10.96*	15.03**	16.14**
Sioux	17.50		---	8.63	12.70**	13.81**
Puerto Rican	26.13			---	4.07	5.18
Mexican	30.20				---	1.11
Negro	31.31					---

* .05
** .01

Total M = 23.45
SD = 14.027

in the other three groups.

Correlational analyses were carried out for all measures and all classificatory variables. Of interest here are the variables of ethnic membership, and language with verbal output.

Ethnic membership and number of phrases:

Negro:	+.3893	(N-46)
Puerto Rican:	+.0831	(N-22)
Mexican:	+.1331	(N-10)
Sioux:	-.1503	(N-16)
Navajo:	-.4202	(N-48)

(In these correlations ethnic group A versus B,C,D, and E were correlated with each test variable.)

The additional calculations which were related to verbal output consisted of the effects of the language used by the child, and story version upon total number of phrases. Both English and Spanish speaking children retold longer stories than the Navajo speaking children. Of interest is the way in which many of the Puerto Rican children relied upon both languages (English and Spanish) while retelling the story. For example, to picture 9, one of the little girls gave the following response: "The boy, the boy? the boy sleep with the baby, and this the baby. The baby sleeps. Luna."

Contrary to the original predictions, the ethnic context of the story did not effect verbal output or length of time of retelling to any significant extent. Negro and Puerto Rican children tended to produce slightly longer stories when retelling the Negro (city) version of the story, while Mexican children were more verbose in retelling the Indian version.

2. Accurracy of Retelling

It was predicted, that when two randomly selected groups of children are administered two versions of the same story, their retellings will differ in accuracy. The story set in the social environment similar to that of the subject was expected to be retold more accurately than the contextually dissimilar story. Of the five ethnic groups tested in this study the best experimental conditions prevailed among the Negro subjects. For this group, a large sample was chosen, and subjects were all tested within a brief time period (approximately 4 weeks). In addition, the random assignment to the two conditions (*Indian* versus *Negro* story version) was rigorously observed.

There were two mutually exclusive indices used in testing the above prediction, *SD* or stimulus-derived, and *SRI*, or story-relevant inferred phrases.[1] The percentage of the original story retold by the children (not verbatim, of course) ranged from 2% to 34% of the text, using the combined SD and SRI phrases as an index. However, when the comparison was made between the two versions of the story, the results with the Negro sample were as follows:

SD (Negro version)	8.09	SRI (Negro version)	7.363
SD (Indian version)	7.66	SRI (Indian version)	7.333

(These means are based upon N's of 22 and 24 respectively.)

The only group of children who were differentially affected by the two versions of the story, as measured by the accuracy index, were the Mexican children. They produced twice as many stimulus-derived items when presented with the Indian version of the story than when tested with the Negro version. Unfortunately, this group was so small (N of 10) that it is impossible to generalize from this result.

The two indices, SD and SRI are complimentary, these measures were developed as the main content indices for story retelling in a previous study of first-grade children. The assumption was made that SD phrases reflect a largely perceptual orientation to the task of retelling, and that SRI items measure cognitive skill, and are indicative of a more complex internal process. In view of such an assumption, it was interesting to find significant social-class and birth-order differences in this previous study of 90 children, drawn from three socio-economic status (*SES*) groups. These young Negro first-graders differed significantly in the amount of SD phrases they produced when analyzed for SES differences. An additional finding emerged for the SRI calculations. First-born children excelled second-borns within the same social class, while middle-class children as a group also excelled lower-class children in their production of story-inferred items. At the same time, no differences were found in the total number of phrases in the retelling of Curious George, the story used for this previous investigation.

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[1] SD phrases reflect the text as well as the pictures, SRI phrases are retold items based solely on the text.

In the present study, we were curious to see whether similar findings would emerge. The birth order data was somewhat sketchy; thus we did not include it in our calculations. The subjects in this study were younger, and they were drawn from a narrower SES range (114 out of the 142 subjects were clearly low-income children, many suffering from severe poverty). However, a small positive correlation was obtained between SRI and socio-economic status, the correlation coefficient, based upon an N of 142 is +.1635. None of the other measures of retelling performance correlated with socio-economic status.

In this context, it is interesting to describe some of the problems encountered in this study in relation to the socio-economic status of the study children. Five different states were represented in the sample of children selected for this study; their living conditions differed in quantitative as well as qualitative ways. Geographic variations in living conditions have been accounted for in the original War on Poverty legislation. Eligibility requirements were adjusted to urban as contrasted with rural areas. Indeed, the deleterious impact of urban slum living, in contrast with rural life in the equally poor, but less congested areas, has been discussed by many. Educators, social scientists as well as legislators acknowledge the particularly harmful effects upon educational development produced by the urban ghettoes. In this study, Negro children, as a group, gave longer, and more action-packed stories (see below) than children from other ethnic groups. Most of the Negro subjects were drawn from New York City child development centers.

One group of Negro children, however, were tested in northern California, in a Head Start center set in the beautiful Sausolito county. These preschoolers were raised in Marin City, a predominantly Negro community, neighboring to the town of Sausolito. At the time of the testing, the two communities were in the process of integrating their schools. When we heard the retold stories of the California children, we were impressed by the fullness of these protocols, the stories seemed longer, interspersed with lively dialogue; they excelled other retold stories obtained in this investigation.

The first thought was that these children must come from a higher socio-economic group than the rest of the study subjects. No significant differences in SES were found between this group, and the New York Negro sample. Though the latter, obviously, represented a broader range. (New York Negro subjects - 37, California - 9.)

An analysis of a socio-economically matched sample of New York and California Negro subjects produced significantly larger SD and SRI phrase counts for the Sausolito group. We interpreted these differences by assuming that subtle features of the environment, not reflected in a gross measure of SES status, were at work. These could be many: the children's freedom to roam, the safety of a rural environment without the usual remoteness and isolation, the absence of harsh winters, and perhaps, the absence of the deep frustrations most poignantly experienced by the residents of a sprawling, congested urban ghetto.

TABLE IV

Output Comparisons between Matched
Groups of California and New York Negroes
(N = 9 pairs)

	Mean Number of Phrases			
	California	New York	Mean Difference	p
Total phrases	52	22	30.3	.005
SD	11	6	4.7	.005
SRI	10	4	5.4	.01

Though the comparisons between the two groups of Negro children are based only upon a few children (N = 18), the magnitude of the obtained differences, as shown in the above table, are impressive. It is possible that on standardized tests of verbal skills and intelligence, a similar gap in achievement would not be demonstrated. The California children had an active, exuberant approach which might be an attitudinal as well as a cognitive determinant of their rich performance on this task. A comprehensive study, far beyond the confines of this investigation would yield the needed answers to the questions raised in this study concerning variations due to "ethnographic" factors.

3. Cognitive Style

Occasionally, a child would retell a story in the following manner:

A.D. (Navajo)

1. Medicine
2. Horse
3. House
4. Girls
5. I don't know. I don't know. (Pause) A boy . . this is corn.
6. Medicine.
7. He comes down and then he goes up again (pause) medicine.
8. "faster, faster" he said . . . so he's hair is blowing.
9. The baby went to sleep . . . so . . . the boy wnet back.
10. Straw doll (pause) a man . . . a lady.

In this story, the child responded with descriptive phrases to seven pictures out of ten. This tendency was different from the overall trend, in which children, on the average, gave twice as many action as descriptive phrases. (Mean number of action phrases for 142 subjects: 8.493, and mean number of descriptive phrases: 4.725.) A story, aimed at young children, implies activity, interspersed, of course, with description and dialogue.

The distribution of action and descriptive phrases revealed the most interesting patterns in this study. Originally, it was our expectation that significant variations would appear in the measures of accuracy, (similar to previous findings). This expectation was not substantiated. Instead, these measures of modes of response emerged as the important feature in the retold stories.

a. The effects of story version

There were no significant differences in verbal output for the two versions of the story. But when the distribution of descriptive phrases was assessed, the analysis of variance calculations pointed to the interaction of ethnic membership with story version. (See Table V) Surprisingly, the Puerto Rican and Navajo children retold the Negro version of *One of These Days* with more descriptive phrases than when they (the other, randomly selected half of the subjects) were presented with the Indian version. Was it the strangeness of the setting which affected the Navajo children, who are unfamiliar with city tenement living and with Negro families? Did they scan these pictures with particular attentiveness? In order to answer these questions, a tabulation of descriptive responses for the two versions was made.

The narrative of the Navajo children, retelling the Negro version, was replete with descriptive labeling,(e.g. man and boy). This was particularly true of those subjects whose story was replete with 2 to 3 times the average number of descriptive phrases. These children failed to retell action sequences, and consequently, their stories appeared somewhat lifeless, and lacked continuity.

In summary, Negro children did not show differences in their retelling of the two different versions of this story as measured by stylistic indices. Puerto Rican, Mexican and Navajo children, on the other hand, responded differentially to the versions of this story. This effect was reflected in their descriptive scores. An interesting reciprocal relationship was discovered between descriptive and action phrases.

TABLE V

Number of Descriptive Phrases as a Function of Ethnic Group Membership and Story Version

A. ANOVA

Source	df	mss	F
A (Ethnic)	3	18.465	1.154
B (Story)	1	32.185	2.012
AxB	3	64.855	4.054 (.01)
Within	118	15.996	

B. Test of mean differences

Treatments		M-N	PR-I	Nav-I	Neg-I	Neg-N	M-I	Nav-N	P-N
	Means	2.75	3.46	3.96	4.58	4.77	5.50	5.76	9.22
Mex. x Neg.	2.75	----	0.71	1.21	1.83	2.02	2.75	3.01	6.47*
P.R. x Ind.	3.46		----	0.50	1.12	1.31	2.04	2.30	5.76*
Nav. x Ind.	3.96			----	0.62	0.81	1.54	1.80	5.26*
Neg. x Ind.	4.58				----	0.19	0.92	1.18	4.64
Neg. x Neg.	4.77					----	0.73	0.99	4.45
Mex. x Ind.	5.50						----	0.26	3.72
Nav. x Neg.	5.76							----	3.46
P.R. x Neg.	9.22								----

** = .01
 * = .05

Protocols unusually high in descriptive, and correspondingly low in action phrases were characterized as the least adequate stories when the criteria of qualitative judgements were used.

b. Ethnic membership and cognitive style

The traditional image of the quiet, contemplative Navajo child emerges when his retold story is compared with that of the urban Negro child. Navajo children include half as many action phrases in their retold stories as the Negro children. However, a similar ratio difference exists in the total verbal output of these two groups; the average length of the Negro child's retold story is twice as long as that of the Navajo child. (See section on verbal output.)

It is interesting to compare some of the other groups in this study as well. The total verbal output of Puerto Rican children is not significantly different from their Negro neighbors. But in their productions of action phrases the two groups differed sharply. As shown by Table VI, Negro children included many more such phrases when retelling One of These Days than did the Puerto Rican children.

Perhaps more surprising than the above trends are the differences in action orientation found between two groups of Indian children. While Sioux and Navajo children differed little in the length of their stories, the children of South Dakota produced more action phrases/ total number of phrases than any of the other groups of children represented in this study. The Sioux stories were short but replete with action. For long, there has been a tendency to generalize about Indians, to view them as a single group. But cultural traditions, and the varying impact of their natural environments, have contributed to wide differences among American Indian groups. The Sioux have been known as outstanding warriors (the best light cavalry of the Americas), a history they still cherish. The Navajo, on the other hand, are people who value harmony and beauty. Although it seems far-fetched, it is possible that the types of differences in story retelling observed among

TABLE VI

Number of Action Phrases as a Function of Ethnic Group and Social Class Membership

A. ANOVA

Source	df	mss	F
A (Ethnic)	4	117.971	4.725 (.001)
B (SES)	3	7.105	.284
AXB	12	7.643	.306
Within	122	27.967	.306

B. Test of mean differences

Treatments		Navajo	Puerto Rican	Sioux	Mexican	Negro
	Means	5.48	6.59	9.12	11.00	11.78
Navajo	5.48	----	1.11	3.64	5.52**	6.30**
Puerto Rican	6.59		----	2.53	4.41*	5.19**
Sioux	9.12			----	1.88	2.66
Mexican	11.00				----	0.78
Negro	11.78					----

* .05
** .01

these two groups of children are reflections of culturally patterned differences.

c. Index of action/descriptive phrases

Most of the results have been presented in terms of single scores. In order to clarify some of the observations made above, concerning the relationship of descriptive and action phrases, a simple ratio was developed. Children's retold phrases were grouped in the following ways:

a Two action phrases (or more)/ one descriptive phrase
b One action phrase/ one descriptive phrase
c One action phrase/ two or more descriptive phrases

The differences in story style between Navajo and Sioux Indian children were described above. The action/descriptive ratio measure was used to assess further their different patterns in retelling.

TABLE VII

Action/Descriptive Ratios of Sioux and Navajo Children

	Sioux	Navajo	
2A/D	10	19	29
A/D	6	16	22
A/2D	0	13	13
	16	48	64

chi-square = 6.5 (p .05)

As expected, the distribution of these stylistic ratios do highlight group differences among the Indian children. None of the Sioux children fall in the low action-high descriptive category, while more than 25% of the Navajo children retold their stories in this manner.

d. Content analysis

Only limited content analyses were carried out with this data. The protocols varied widely in length, quality, and focus; an effective formal analysis could not be undertaken.

Nevertheless, one of the first questions asked, was: do the children comment about the child-hero of One of These Days, do they identify him as Negro or Indian (depending upon the version)?

Half of the Sioux children spoke of James as "that Indian boy" or "that Indian", while none of the Navajo children mentioned the Indianness of the hero, when presented with that version. This is a curious difference; it may relate to the fact that Sioux children are raised in, or close to, mixed communities, while Navajo children, on the whole, live in all-Indian communities.

The ethnic identity of the hero was mentioned more often by the children when they were presented with the Indian as contrasted with the Negro version.

While the Navajo children did not comment upon the Indianness of James, they responded differentially to the illustrations. When presented with the Indian version, children labeled objects of cultural significance to them. For instance, they mentioned the corn doll, medicine bag (the object used as a bag to correspond to the piggy bank in the Negro version). Perhaps the most interesting illustration of this trend was a 'case of mistaken identity'. The first illustration of this story depicts the father and the son, talking. The father points upward toward the moon. Some of the Navajo children referred to this picture by saying "corn Pollen". The gesture reminded them of the Navajo religious ceremony in which corn pollen is sprinkled.

The children, when retelling One of These Days varied enormously in their exclusions and inclusions of story elements. The majority of the children did refer to the baby sister or doll in the story, as well as to the pony. No other object or feature appeared with the same regularity. The Navajo and Sioux children commented about the moon more often than did the city children, who, on the other hand, referred to the piggy bank or money frequently.

A striking feature of some stories, absent from the original text, were details reflecting a preoccupation with violence. Some of these statements were as follows: "and he killed the doll with laughing"; or, "he('s) punishing him". Meaning, we think, that the father is punishing the boy. In another story, these phrases appeared: "He walked up on the moon. He going to try to kill him. And he see this up here. He ain't going to hold that no more. He gonna try and kill him, then."

These unexpected details of fear and violence were only present in the retold stories of city children, though experience with a violent reality was not absent in the lives of some of the Indian children.

It is rather questionable whether a single performance, (a retold story, or a projective test) is a useful indicator of troubling, and recurrent concerns which might preoccupy children. In studies which we are now planning, each subject will retell stories three times during a school year. He will be asked to construct an original story of his own, as well as retell the stories read to him. In this manner, the projective content of retold stories will be opened to repeated examination.

e. Interrelationship of task measures

The continuing assessment of a new technique, such as the Story-Retelling task, implies a continuing examination of the newly elaborated measures. In this section, some of these assessments will be presented.

In this study, two types of phrases were differentiated, inferential and descriptive. This dichotomy is represented by the SRI (story-relevant inferred) and SD (stimulus derived) items. If, indeed, SRI phrases correspond to a complex process, then it is likely that they will be preceded by long pauses. In contrast, the relatively simpler descriptive phrases will not be preceded by long, but by short pauses.[1] In other words, time as measured by the duration of pauses was used as an indicator of an internal process of complexity, a procedure akin to that used by Frieda Goldman-Eisler (3), and by Harry Levin (6).

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[1] Pauses were grouped according to duration; short pauses were those of two seconds and less, long pauses lasted more than two seconds. For further discussion of the pause analysis, see pages 25-26 in the Data Analysis section.

It was found that SRI (inferential) phrases were preceded by a greater number of long than short phrases, while SD phrases were not preceded by a significantly greater number of long pauses. These findings are not as clear-cut as the prediction would imply. The data is presented in Table 8; this analysis is based upon the protocols of the New York Negro children. (We endeavored to choose a single, relatively homogenous group for these calculations.) The relationship between pause length and sentence type was examined additionally by means of correlations. These findings are also included in Table VIII.

TABLE VIII

Pause Length and Phrase Type Analyses

A. Contingency Analysis

Mean Number of Phrases (N = 37)

	Preceded by Long Pause	Preceded by Short Pause	Mean Difference	p
SRI	4.54	1.94	+2.59	.01
SD	4.08	3.00	+1.08	NS

B. Correlational Analysis (N = 114)

	Long Pauses	Short Pauses
SRI	.5239	.3485
SD	.3713	.2986

It is difficult to determine whether these findings are effected by a confounding variables. For instance, each time a child is presented with a new picture he takes longer than two seconds to produce his first phrase, regardless of the type of phrase he is emitting. In addition, inferential phrases, as presently scored in this task, are uneven as to complexity. The retelling of dialogue, or melodious phrases such as "high-low", "high-low", (referring to the way in which James' brothers snore) are all scored as SRI. They are added to the more difficult sequencing phrases. In future research, an attempt will be made to 'purify' this measure, and replicate some of these analyses. The measure of stimulus-inferred phrases requires further refinement; the SRI score did not emerge as discriminating as in previous studies of Story-Retelling. However, in this study, SRI was the only task-derived measure to correlate significantly with socio-economic status, and with scores on the Peabody Picture Vocabulary Test (See Table 9). It does seem likely that an improved SRI measure will be of use as a predictor score for verbal learning in the classroom. This is one of the hypotheses to be explored in a study just initiated by us.

B. Reliability Calculations

Children's retold stories include many fragmentary phrases, some barely audible words, repetitions, fillers; in short, these are samples of language of considerable irregularities, and variations. Due to these characteristics, is is particularly important to assess inter-rater reliability in the scoring of these protocols. The obtained reliability coefficients are quite high. (See Table 10)

The two types of phrases which reflect slightly lower reliabilities were action phrases and stimulus-derived phrases. In the case of the former, scoring problems were presented by passive forms, i.e. "jewelry was falling from the sky". Is this an action of a description? Stimulus-derived phrases presented a different problem; at times, the transformations of the original text were so extreme in the retold version, that it was difficult to determine whether they were still text-based, or merely descriptive of a pictorial detail.

The question, how reliable is the story retelling task, is an obvious one, although it is a hard question to answer. Reliability calculations are traditionally based upon tests which have an equal number of items, and therefore appropriate for split-half reliability calculations. This method is not applicable to a technique in which the very length of the response is a variable which reflects performance skills. An assessment of reliability by means of parallel forms presents different problems. Each story, if it is a

TABLE IX

Correlations Between Story Retelling Scores and Independent Variables

Story retelling score	Independent variable	N	r	p
Time	Sex (Boys vs. others)	142	.1522	.05
SRI	SES	142	.1653	.025
SRI	PPVT	59	.3030	.025

TABLE X

Inter-rater Reliabilities of Story-Retelling Measures
(2 judges)

	r
Number of Phrases	.98
Action Phrases	.86
Descriptive Phrases	.99
Stimulus-Derived	.86
Story-Relevant Inferred	.99

story, effects children differentially. Their interests, their likes, are aroused by one story, while unfulfilled by a different story. Nevertheless, in this initial stage of our work with the story-retelling task, correlational analyses of the performance of children based on two books is used as a preliminary indicator of test reliability.

In Section I, Design of the Study, the procedure of giving the subjects a 'warm-up' experience was described. The book Curious George was individually administered to each child, and the retold stories were taped and transcribed. One of These Days was always administered second; it is a shorter story than the tale of the mischievous monkey, which has a spectacular appeal for many children.

The order of administration was fixed--there was no attempt to equalize these stories; therefore, one cannot look at the retold stories as test performance obtained by the parallel forms of the same test. However, in a broader sense, the two sets of retold stories are two samples of retelling behavior, and consequently, a correlational analysis of the obtained scores is of relevance to test reliability.

In the context of a one-year exploratory study, many procedural weaknesses will occur. One of the problems in this study was the unequal time spent on data gathering, by the librarians who worked during the summer of 1965, as contrasted with the Navajo librarians whose work spanned several months. The latter had time to transcribe all their tapes carefully, including the Curious George protocols. The summer librarians who worked among the Negro and Puerto Rican children were too pressed for time, therefore, they only transcribed portions of these warm-up protocols.

Consequently, the forty subjects chosen for the correlational analyses were those Navajo children for whom two complete protocols were available. The correlations were done on the major story retelling measures, though for nine children whose scores were first examined when the initial shipment of Navajo tapes arrived, action and descriptive phrases were not included.

(Time pressure forbade additional calculations.)

TABLE XI

Correlations of Story-Retelling Measures of Forty Subjects*
Based on Two Retold Stories by Each Subject

Measure	Correlation coefficient (Pearson r)	
Number of phrases	.577	(significant at .005)
Action phrases	.434	(" " " .01)
Descriptive phrases	.570	(" " " .005)
Stimulus derived	.484	(" " " .005)
Stimulus inferred	.722	(" " " .005)

*Except action and descriptive phrases, where N is 31.

The Navajo children's retold stories were both in Navajo and in English; the scoring and correlational analyses were based upon a translation of the Navajo tapes into English by the librarian. This fact might have had some bearing upon the obtained correlation coefficients, particularly as effecting the action phrases, because the translation of Navajo verb phrases into English was particularly difficult.

In sum, the correlational analyses presented in this section (though they are fragmentary) lend support to our working hypothesis: namely, that the Story-Retelling Technique is a measure which can be used to compare groups of children, drawn from varied backgrounds, for differences in performance on a sequential language task.

C. Behavioral Rating Scale

The teachers of children enrolled in Child Development Programs were asked to fill out a Behavioral Rating Scale. Eighty-nine of the subjects in this study (representing the Navajo, Negro and Puerto Rican groups) were thus rated. It is difficult to compare across ethnic lines with this instrument, because the teachers making these ratings did not, in most instances, have cross-ethnic experiences. Thus, a more meaningful way to analyze these ratings is to see how scores on the Behavioral Rating Scale correlate with measures obtained on the experimental tasks.

The dimensions chosen for these analyses were specified in the Chicago Head Start study, by Hess and co-workers. (See Appendix) The five most prevalent characteristics among these pre-schoolers were achievement motivation, independence, verbal-social participation, and two somewhat contradictory scales, aggression and timidity.

The experimental measures chosen for correlational analyses between behavioral ratings and verbal performance were as follows: accuracy measures (SD and SRI), stylistic measures (action and descriptive) and scores on the Peabody Picture Vocabulary Test. (Only 36 children had both PPVT scores and ratings on the Behavioral Rating Scale.)

A number of significant relationships were obtained in the correlations of language and behavioral measures. Both accuracy measures (SD and SRI) were found to be related to teachers' ratings. Those children who included a large number of stimulus derived phrases in their retellings tended to be rated as high in achievement motivation. Children who were rated low on timidity and aggression excelled others in their story-relevant inferred scores. Of particular significance is the correlation obtained between verbal-social participation and the SRI score. In addition, the correlations reveal a positive relationship between action phrases with achievement motivation and verbal-social participation. A negative correlation exists between timidity in behavior and the depiction of action in the retold stories.

Though only a small number of children had both vocabulary test scores and behavioral ratings, the finding of a positive relationship between independence and the PPVT is statistically significant. (See Table XII)

The evaluation of these findings is enhanced by the consistency between our results and those obtained by Hess and associates in their Chicago Head Start study. (4) The measures of cognitive performance used in their study were as follows: Stanford Binet, Pre-School Inventory, National Percentile

TABLE XII

Correlations of Behavioral Inventory Ratings and Experimental Measures

Behavioral characteristic	Experimental measure	r	p
High Aggression	Low SRI	(-.191)	.05 (N=89)
High Verbal Participation	High Action	(.208)	.05
High Verbal Participation	High SRI	(.254)	.025
High Timidity	Low SRI	(-.246)	.025
High Timidity	Low Action	(-.320)	.005
High Independence	High PPVT	(.417)	.01 (N=36)
High Achievement Motivation-	High SD	(-.211)	.05
High Achievement Motivation-	High Action	(-.352)	.005

Rank Achievement Test (number and number readiness). These tests measure a broader range of cognitive skills than the measures used in this study. Nevertheless, the findings are similar; aggression and timidity were shown to relate negatively to cognitive performance in both studies, while Verbal-Social Participation, Achievement, and Independence are positively related to cognitive performance, again a finding which is the same in both studies.

The conclusion reached by Hess, based upon these results could be advanced in this study as well: "a more than moderate indication of cognitive performance . . . is related to behaviors which are integrally related to academic success." Similarly, in this study the relationship between measures of language-cognitive performance (SRI) and verbal-social participation appear promising, a fact which supports our contention that this technique might be used as a predictor for classroom verbal learning.

D. Parental Interviews

The expanded length of the Navajo part of this study made it possible to gather information from the Navajo parents. The librarians working during the summer of 1965 had hoped to be able to interview the parents of the other children, but they were unable to do so because of the lack of time.

Forty-two parents out of a possible 50 have been interviewed on the Navajo reservation. The responses reflected an emphasis upon a close family life, a value deeply held by the majority of Navajo people. When asked whether their children spent much time with each other, 38 out of the 42 respondents answered in the affirmative. However, when the mothers were presented with the following question: "Mothers often tell their children, 'your best friend is your sister or your brother', do you feel this way?" only ten answered "yes". Five said "yes", but qualified it by wanting their children to have other friends as well, and 25 responded, "no". It is interesting that the Navajo librarian who interviewed these parents commented in 38 cases that "the family had a very close relationship".

To question I, "Are your children and their cousins friendly?", 21 mothers stated they were very close; 15 said they were very friendly, but did not live nearby; 4 said their children were very friendly with their aunts, uncles, neices or nephews. One mother said her child was friendly with everyone. Only one respondent stated her child was not friendly with his cousins. She explained this by stating that they were part "Anglo" (non-Indian), and therefore the relationship was not good. To the question, "Does anything about your child's language bother you?", the answers reflected lack of understanding by the parents. A few were concerned about "vulgar" language.

A very different picture emerged, when parents were asked what about their pre-school child pleased them. Six major characteristics were noted. Over half of the respondents ascribed a quality of helpfulness to their children. The second-most popular characteristic dealt with interest in learning in school (meaning pre-school, or course). Eight of the mothers mentioned the acquisition by their children of educational skills, four mothers listed good sibling relationships, and four praised their children for desirable personality characteristics. Analyzing these response patterns according to the socio-economic status of the parents, it was found that those parents listing educational skills and personality values were of a slightly higher socio-economic status than those who stressed helpfulness and obedience.

Questions concerning parents' feelings toward Head Start, and those about the child's enjoyment of school were not analyzed. The questions seemed to be worded in such a manner so as to obligate the parent to give a positive answer. All parents were quoted as saying that Head Start was a worthwhile experience for their youngsters, although many could not say why, and all children were said to be enjoying the program. Where the parents expanded their answers and gave reasons why they approved of Head Start, we examined the answers more carefully. Below, we have included the entire answer to question, "What kinds of things does your child do that please you most?", because we felt it expressed well the feelings of many parents toward Headstart. The child involved is a five-year-old Navajo boy.

> "The thing that pleases me most is that before he actually started school, my child can write his name, he can count, he does a little multiplication, and he knows his A, B, C's. He has also realized that there are other children in the world besides his family, and I think he has learned to get along with them. With this background, I believe he is ready to start in the regular school program.
>
> "None of my other children have had this type of training before and it was kind of hard for them. I would take them to school the first day of school and they would always follow me home, because they don't understand that they will come home at the end of the day. E(mery) has

learned early and I know I won't have any trouble with him. The only thing he is afraid of, as he always says, 'My school at the chapter house is really easy, but the big school will be hard.'"

E. Assessment of Books Used in Head Start Centers

Several librarians and teachers in a large number of Head Start classes completed questionnaires on books available to the children. Three types of questionnaires were utilized. In the group questionnaire, the respondents were asked to list the books available to the children, how often the books were read, how books were chosen. In addition, they were asked to specify the five most effective books, those which were particularly popular with the children, those which produced verbal responses or served as a springboard for specific learning.

For each "kit" book an observation sheet was completed by giving evidences of positive or negative response on the part of the children. Specific reasons for these responses were offered by some of the librarians.

Individual book ratings were done on the Sioux reservation. Each book was rated by the teacher for each child, and particularly enjoyed or disliked parts were noted. Although most of the twelve books rated individually were "kit" books, some were "classic" stories such as The Three Little Pigs.

Three separate analyses were done. The first concerned only books not part of the librarians' kits. Each time the book was mentioned in a positive aspect, it received one "popularity" point; similarly, each time it was said to have elicited verbal response it received one "verbal" point, or to have served as a springboard for specific learning, it received one "learning" point. These points were summated within the three categories, and books ranked in order of enjoyment, effectiveness in stimulating the use of language, and utilization in learning situations. (For results see Appendix.)

The second analysis concerned only the books included in the librarians' kits. Each positive comment was given a score of 3, each negative comment, a score of 0. These were added together, and a mean enjoyment rating computed. Books were thus ranked in order of enjoyment. Likewise, the number of times a book was mentioned as having elicited verbal response were summated, and books ranked in order of verbal stimulation. Finally, the number of times the book was cited as stimulating to learning were added, and books ranked on that variable.

1. Analysis of "kit" books

The ten books included in the kit were assigned a mean popularity rating of from 0 to 3 depending upon the number of positive and negative comments about each book. The most popular books were Whistle for Willie (2.8), Curious George (2.7), and Gilberto and the Wind (2.5). These were closely followed by Curious George Gets a Job (2.3), and The Lion and the Rat (2.25). Least enjoyed by the children were May I Bring a Friend? (2.1), The Cat in the Hat (1.9), Shapes (1.7), Snail Where Are You? (1.7), and Happy Birthday to You (1.0).

Verbal stimulation scores were assigned by summating the number of times a book was listed as having elicited a verbal response. In descending order, Curious George (8), Gilberto and the Wind (8), The Lion and the Rat (6), Whistle for Willie (6), Shapes (5), Curious George Gets a Job (4), May I Bring A Friend? (4), The Cat in the Hat (3), Happy Birthday to You (2), and Snail Where Are You? (2).

Utilization in a learning situation was ranked similarly by summary scores: the most useful was Curious George (3), followed by Gilberto and the Wind, The Lion and the Rat, and Shapes, each receiving a score of 2.

Thus, two books (Curious George, Gilberto and the Wind) received high scores on all three measures, and two books (Whistle for Willie and The Lion and the Rat) received a high score on two. Four books (Happy Birthday to You, May I Bring a Friend?, The Cat in the Hat, and Snail, Where Are You?) received low scores on all three measures.

2. Individual Analyses

12 books were analyzed for individual children in the Sioux Reservation Headstart Centers. 8 of these (The Cat in the Hat, Curious George, Curious George Gets a Job, Happy Birthday to You, The Lion and the Rat, May I Bring

a Friend?, Shapes, and Whistle for Willie) were included in the librarians' kits; 4 (Andy and the Runaway Horse, Come Play House, Momo's Kittens, and The Three Little Pigs) were not.

Popularity scores were given where a positive response was 3 points, a negative response 0 points, and no response at all, 1.5 points. The best liked books, followed by their mean popularity ratings are as follows: Andy and the Runaway Horse (3.0), Curious George Gets a Job (3.0), The Three Little Pigs (3.0), and Whistle for Willie (3.0). Less popular were Curious George (2.9), The Cat in the Hat (2.8), The Lion and the Rat (2.6), Momo's Kittens (2.4). Least popular were Shapes (2.0), Come Play House (1.5), May I Bring a Friend? (1.2), and Happy Birthday to You (0.3).

Books were then ranked on a continuum of attention, i.e. whether each child listened attentively when the book was read. A score of 3 was assigned if attention was " a lot", 1.5 if it was "some", or 0 if it was "none". The books which best held the children's attention, followed by their mean scores are listed below: Curious George Gets a Job (3.0), Shapes (3.0), Whistle for Willie (3.0), Andy and the Runaway Horse (2.7), The Three Little Pigs (2.7), and Curious George (2.6). To Happy Birthday (1.2), children were least attentive.

Interest ratings were assigned in the same manner. Children were most interested in Curious George Gets a Job (3.0), Shapes (3.0), Whistle for Willie (3.0), Andy and the Runaway Horse (2.7), and Curious George (2.6). Happy Birthday to You again had the lowest score (1.2).

Average response scores assigned in a similar manner, were generally much lower. These were dependent upon whether the child's response to the book was "a lot", "some", or "none". Whistle for Willie (2.5) occasioned the greatest response, followed by Curious George Gets a Job (2.2), and The Three Little Pigs (2.1). Lowest scores were given to Happy Birthday to You, and May I Bring a Friend?, (both 0.8).

Three books were requested by children for additional readings: Come Play House, Curious George, and The Three Little Pigs. A large number of children agreed to retell the stories of four books: The Cat in the Hat, Curious George, Curious George Gets a Job, and The Lion and the Rat.

The kit books and those undergoing individual analysis were examined carefully to determine which particular parts and illustrations the children enjoyed, or conversely, did not like. These comments were provided by the Navajo and Sioux librarians.

In Andy and the Runaway Horse, most children liked all parts of the book, but a substantial number particularly enjoyed parts where Alice the Horse ran away. They also liked the illustrations of Alice the Horse.

In The Cat and the Hat, most children enjoyed the parts about "Thing One" and "Thing Two". Many children liked the entire book, but also mentioned were sections about "the cat in the funny car", and "the cat doing tricks". While English speaking children enjoyed the rhyming, it was not at all effective in the Navajo version. A large number of illustrations were appealing to the youngsters.

Come Play House was enjoyed by girls only. Comments from the boys were all negative. The girls enjoyed parts where the little girl dressed in her mother's clothes, and parts where she did such household tasks as washing dishes.

Many children liked all of Curious George. A large number of preschoolers enjoyed the humor, and the sequences of George in jail and playing with the balloon. Many different illustrations were noted as "catching the child's eye".

While the Sioux children chose Curious George Gets a Job as one of their favorites, the Navajo children liked it because they had remembered George's early adventures, but it was not as popular as Curious George. Most of the Sioux children liked all parts of the story, and all illustrations, although a few parts singled out concerned painting the apartment, smelling ether, washing windows, and riding the subway.

Gilberto and the Wind, stimulated much talk about kites, pinwheels and similar objects concerned with the wind.

Happy Birthday to You was disliked by most children because, as the librarians felt, it was too advanced or sophisticated for them. They became restless and bored. The one boy who liked the book was mainly interested in the pictures of animals.

The children enjoyed The Lion and The Rat. Most liked the entire story, but some did mention parts where the lion was in the trap, and where the rat came to help the lion. Particularly popular with the children were the animal illustrations.

May I Bring a Friend? was both liked and disliked. A small number of Sioux children enjoyed the entire book. Navajo children liked parts where each friend was first introduced. City children, particularly after visits to the Zoo, enjoyed this book. The illustrations most noted were those of the queen, those of the animals in the zoo, and that of the giraffe eating with the king and queen. Generally, however, the book was unpopular with the children because it was too complicated for them, and both the Navajo and Sioux preschoolers were unfamiliar with the concepts of King and Queen.

In Momo's Kittens, the children liked the parts of the story and the illustrations dealing with the kittens.

Shapes was another book that was both liked and disliked. The Navajo children liked it because it dealt with familiar objects which they enjoyed identifying within the room. Some of the Sioux children did not like the book because it had no story. Popular illustrations were of the giraffe, a little girl with bows in her hair, and a horse.

Snail, Where Are You? while liked for its simplicity, tended to bore the children.

The Three Little Pigs, a classic fairy tale, was enjoyed in toto, but the part where the wolf attempted to blow the houses down was particularly popular.

Navajo and Sioux children clearly enjoyed Whistle for Willie. Both groups were particularly impressed by the whistling and attempted to whistle both during and after the story. That the characters were Negro interested some of the Sioux children, as they had never seen Negroes before.

All analyses performed seemed to indicate that the most effective books for these children, of those included in the librarians' kits were the Curious George books, Gilberto and the Wind, The Lion and the Rat, and Whistle for Willie. Least effective on all measures were Happy Birthday to You and May I Bring a Friend?, both considered too sophisticated for the children.

3. Group Ratings

55 non-kit books received at least one mention of popularity or effectiveness with the children (popularity with at least one class). These books are listed in Appendix H. Listed in order of preference of books receiving three to nine mentions of popularity are: 1) Book of Mother Goose and Nursery Rhymes, 2) The Three Little Pigs, 3) The Three Bears, 4) Caps for Sale and Little Red Riding Hood, 5) I Like Red and When I Grow Up, 6) The Little Red Hen and Pretzel.

19 books were said to have elicited verbal response. Those receiving more than one mention were: 1) Book of Nursery and Mother Goose Rhymes, 2) Caps for Sale, and 3) Little Red Riding Hood.

Fourteen books have served as a springboard for specific learning. Most often mentioned were Tim Tadpole and the Great Bullfrog, When I Grow Up, Barto Takes the Subway, and The Farm Book.

V. DISCUSSION AND CONCLUSIONS

The question, 'What is the impact of ethnic content in story books?', was a much debated inquiry a couple of years ago. Educators who are specialists in Early Childhood questioned whether the preoccupation of the poverty workers with realistic stories in naturalistic settings was justified. In this study, two somewhat contradictory findings are of relevance to this debate.

We found that Whistle for Willie, a 'new look' story book with a small Negro boy, and his dog, as the hero was the most favored of the kit books; this was true among the Negro children, but even the Sioux and Navajo children enjoyed this book enormously (with the exception of a couple of Indian children who reacted negatively to the Negro context). The appeal of this book was twofold; the familiarity of the events and setting seemed effective; in addition, the children of all ethnic groups enjoyed 'whistling.' Curious George, the tale of the mischievous monkey, was a close second among the books evaluated in this study. This book is a classic among children's books; the realistic world of the young minority child is not reflected, directly, in its plot. It is possible, that the recent and insistent emphasis placed upon the shared ethnicity of reader and story figures might be overestimated, although there were indications, in this study, that children pay attention to, and often welcome, a story about a child like themselves. (The frequency with which the Sioux Indian children commented upon the Indianness of James, the hero of One of These Days, is of interest in this regard.)

It would seem then, that the inclusion of 'ethnic' books in a pre-school library is a necessary and useful component of a program aimed at non-white children.

But, contrary to the original predictions, Negro children, in this study, did not retell more accurately, or more abundantly One of These Days when presented in the urban, Negro setting. There were no quantitative differences in the retold stories as a function of story version. This lack of a differential response was interpreted in the following way: In the context of an enriched program in which 'ethnic' books were made available to the children, the singular repetition of a book, with a Negro family as its focus, has no special effect.

Among the Navajo children, who had no access to printed storybooks with Indian children in them, and whose experience with books of any kind was limited, the impact of the two versions of One of These Days was more complex. When confronted with the Negro version, many of these children gave a series of labels, or short descriptive phrases. They did not include dialogue, or retell the action sequences of the story. It was as if they had difficulty entering into, or identifying with the story, its people, when it was set in the Negro context. This, however, was not a universal trend.

In summary, it appears that the ethnic context of a story is a subtle variable; its impact depends upon a variety of factors. Among these may be the relative scarcity or abundance of books representative of the child's own environment. Another factor is the insularity of an ethnic group--the frequency with which children interact with members of other ethnic groups.

A. Story-Retelling Technique

The consistent and intriguing findings in this study relate to features other than the ethnic content of books. Variations in retold stories as a function of ethnic membership and language spoken yielded interesting results. While retelling a standard story, children display a variety of verbal skills. In their choice of what to retell, children display selective memory, an eye for striking detail or a culturally significant ritual, and in many instances, they reveal a certain stylistic unit in their story format. Not all of these features of retold stories are quantifiable, though it is possible to develop some indices to correspond to subjectively perceived qualities of retold stories. In this investigation, much progress has been made in the adaptation of the Story-Retelling Technique to varied field conditions, to speakers of diverse languages, and in the quantification of the stories themselves.

Two major applications of this technique are envisaged by the authors. The first of these is the expanded use of this task for comparative, cross-cultural research; the second is the monitoring of language growth in young children, by repeated retelling of stories. Many of the traditional techniques of language assessment have been found limiting by contemporary workers in the field of language research. Measures of vocabulary (productive or receptive) give but a narrow picture of the ways in which children use language. Lacking a common verbal input, projective tasks, such as the Thematic Apperception Test, present difficulties in intra-personal or group comparisions. The currently popular imitation tasks assume a high degree of cooperation on the part of young children in the testing situation, but these tasks lack in intrinsic interest. Recognizing these limitations, it seemed useful to attempt to refine a technique which is applicable to the assessment of language skills of children of diverse backgrounds.

The following features of verbal behavior have been assessed with this technique:

1. Output variables

The verbosity of children can be misjudged by teachers, as well as by the psychologist. Many young, bilingual children, or children who are speakers of low-status dialects, tend to withdraw from speaking when in fron of other children, or when confronted by strangers. But, language samples can be gathered from such children by training teachers, or 'librarians' to administer a task, such as Story-Retelling, to the child in an individual session, in his own language. If the testing situation is standardized, measures of the child's rate and volume of language, derived from his retold story, can be compared with the performance of other children.

We found that Indian children were less verbose than the Negro and Spanish (Puerto-Rican and Mexican) children as assessed in this study. One might have expected the non-English-speaking children to be limited in verbal output. But, many of these children, contrarily to such expectations, retold full and longish stories. At times, they switched from English to Spanish, or the reverse, with ease.

How important is verbal output as an indicator of verbal competence? To date, the results are contradictory. In the case of the toddler, sheer volume is an indicator of verbal growth. But in the case of preschool, and grade school children, low, non-significant correlations have been found between verbal output and verbal meaning measures, or output and intelligence.[1] The susceptibility of verbal output to the social conditions in which language is elicited might contribute to the indefinitiveness of our current knowledge. The measurement of verbal output is one of the trickiest tasks confronting the psycholinguis

2. Measures of accuracy of story-retelling

Do children retell verbatim a story they have just been read? If the story is of some length, and in this study both of the stories were, very little of the original story is rendered back word-perfect. Consequently, accuracy is measured by the number of text-based , though modified, phrases in this study. Of the two accuracy measures discussed in the text of this report, stimulus-derived (SD) phrases, and story-relevant inferred (SRI) phrases, the latter is of special significance. The number of text-based phrases, which are not depicted in the illustrations, measure, it was argued, the child's skill in retelling a sequentially organized, continuous story. This is the only index which correlates significantly with the subjects' social class membership, and their performance on the Peabody Picture Vocabulary Test. There were no ethnic differences, however, obtained by this index in this investigation.

The recall of text-based phrases, without a pictorial cue to aid the child in this recall, assumes that the child is engaged in active and careful listening. It is possible that the SRI index can be used as a predictor of children's verbal learning rate in the classroom. The usefulness of this measure as a predictor is currently being tested.

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[1] In this study, number of phrases did not correlate with social class, age, verbal-social participation in the classroom or any other of the antecedent variables.

3. Stylistic measures

The retelling of action sequences in One of These Days, as contrasted with stories replete with descriptions, or labels, differentiated sharply among children drawn from different ethnic groups. This index also reflected differences in story version. Negro and Mexican children produced more active stories than the Puerto Rican, Navajo and Sioux children. However, when action phrases were looked at as a percentage of the total number of phrases produced, the Sioux Indian children emerged in a different light. Theirs were short but action-packed tales.

This penchant for the retelling of what is happening seems to be an indicator of cultural differences. In examining what is a good or balanced story, an action/description index was developed, and proved to be a good indicator of subjectively perceived differences in the quality of the retold stories.

4. Incomplete analyses

The abundance of language is an appealing, but overwhelming aspect of research in children's language. In this study many tasks originally contemplated could not be carried out. Only a few of the copious Curious George protocols (of these supposedly non-verbal low-income children) were transcribed and analyzed. A grammatical analysis was planned, but due to time limitations and the unavailability of trained linguists, we could not get beyond the planning stage.

The content of these retold stories varied greatly. Some of these variations were related to the ethnic content of the story (only Indian children wove a religious element into their story when retelling the Indian version of One of These Days). Other variations appeared more personal, or idiosyncratic. One of the most striking findings was how some city children included violent actions or feelings in their retold story. In spite of these interesting observations it was not possible to carry out a formal content analysis.

B. Additional Remarks

One of the most useful procedures developed in this study was the appointment of a 'librarian' to the child study centers. These individuals performed a variety of roles; primarily their responsibilities were those of a research assistant. They were effective because the children had become familiar with them and their kit of books by the time the formal research part of the study was initiated.

Most of the librarians were drawn from the ethnic communities in which the research was being conducted. They were invaluable in overcoming the cultural barriers one so often encounters when working in low-income and tribal communities.

The relationship between selected language measures and scores on the five dimensions of the Behavior Inventory Scale were of interest in this study, as they were similar to findings obtained by another Head Start research team. It does appear that teachers' ratings of children in pre-school classrooms are useful supplementary measures, a fact often underestimated by the research-oriented psychologist.

A limited number of Parent Interviews were obtained in this investigation; the parents interviewed were drawn from the Navajo reservation. Of interest were their expressions of enthusiasm concerning the Head Start program, and their assessments of their children's positive characteristics. Many of them stressed helpfulness and obedience, while the parents of higher socio-economic status emphasized educational skills and personality values.

In this study, only a limited start was made toward the assessment of books used in pre-school centers. Nevertheless, it appears that it is possible to collect information concerning children's book preferences, and that a cohesive picture of preference does emerge from such observations. It seems that this crucial area for language development and reading-readiness skills needs additional, extensive exploration among low-income children.

It is the writers' hope, that this research report will serve some purpose to other investigators. This exploration into the manifold and complex lives led by children raised in tenements and hogans, and speaking English or another native tongue, has been a joyful and exciting study for us.

Bibliography

1. Cazden, Courtney. Some Views on Subcultural Differences in Child Language, Merrill-Palmer Quarterly. vol. 12, number 3, July 1966, P. 191.

2. Deutsch, M., Maliver, A., Brown, B. and Cherry, E. Communication of Information in the Elementary School Classroom. Cooperative Research Project No. 908. April 1964.

3. Goldman-Eisler, F. Hesitation and Information in Speech, Information Theory, 4th London Symposium. Butterworth, London, pp. 162-174. 1961.

4. Hess, Robert D., Techniques of Assessing Cognitive and Social Abilities of Children and Parents in Project Head Start, Final Report on Research Contract OEO-519, Univ. of Chicago, 1966.

5. John, V. and Horner, V. The analysis of story-retelling as a measure of language proficiency. Paper presented at the Annual Meeting of the American Psychological Association, September, 1965.

6. Levin, H. and Silverman, I. Hesitation Phenomena in Children's Speech. March 1963. Mimeographed Report.

7. Millon, Clara and John, Vera. Unpublished summary of parent interviews conducted in Rochester, New York, Spring of 1961, and Fall of 1965.

APPENDIX A

One of These Days: Negro Version

(1) "What's it like on the moon, Daddy?" James asked.

"Why it's cool and clean as a country rain on the moon. And there's lots and lots of tall grass. Every child has a room of his own to sleep in, and a piggy bank to put his dimes in.

(2) When a boy gets to be six years old, his Daddy buys him a pony with a shaggy black mane. He rides it every day. And on Sundays he gallops the pony over the moonlight."

(3) That night James lay on his bed and looked up at the cool round face of the moon.

In the next room, his older brothers snored softly. They always snored when it was hot. One snored high, the other snored low.

"Hi-low, hi-low," thought James. "I'm the only one awake. Me and my rag doll." He hugged the rag doll to him and whispered in her ear. "One of these days, rag doll, one of these days we'll go to the moon and see what it's like, some night real soon..."

A small cry floated across the room. Uh-oh. His baby sister was awake too. Father rolled over in his bed.

"Can't a man get a night's sleep in his own house?" he said. "One of these days, one of these days, we're going to move out and find another place."

Mother went to the crib, and said, "Hush baby, hush baby."

(4) James fell asleep to his mother's voice. Soon he was dreaming. He dreamed that he and his rag doll were on the moon. It was raining. James and the rag doll wore high red boots and splashed in the puddles.

The rain stopped.

(5) Now dimes began to fall from the sky. They landed in the tall grass without a sound.

"Hooray," shouted the rag doll, and she and James ran from place to place, stuffing their pockets and their high red boots with dimes.

(6) "Oh dear, oh dear, oh dear," said the rag doll. "Where will we put them all?"

"In me," said a voice. "Fill me up.'

They turned around and saw an enormous piggy bank. James and the rag doll climbed the silver ladder beside it and emptied their pockets into the piggy bank. Clickety, clickety, clink.

"More, more, more," grunted the piggy bank. "You must give them all to me.'

So James and the rag doll climbed down and up and down and up the silver ladder, carrying the dimes in their pockets and boots. And every time they dropped one in the piggy bank grunted, "more, more, more."

(7) Finally there was only one dime left. The rag doll clutched it in her hand.

"More"grunted the piggy bank.

The rag doll began to cry. "I'd like to keep just this one," she said in a very small voice.

"Don't cry," James said. "You may keep the dime."

(8) Now in his dream it was Sunday, the day of his sixth birthday. The little pony which his father had bought him was waiting quietly for him by a big tree. James climbed on the pony and put the rag doll in back of him.

Soon he and the rag doll were galloping through the moonlight. "Faster!" cried the rag doll.

The strong fingers of the wind parted James' hair, and the woolly strands of his rag doll, and the shaggy mane of his pony.

"Faster, faster, faster!" cried the rag doll, and suddenly she burst into tears.

"What's the matter?" shouted James. "I thought you wanted to go fast."

The rag doll cried louder and louder.

(9) But when James turned around, it wasn't his rag doll on the seat behind him. It was his baby sister.

"Hush now," said James. "Don't cry. Please don't cry."

And then James woke up.

Even in his dream he had heard his baby sister. She was still crying. Mother had moved the crib into the hallway and had gone back to bed. Father had put a pillow over his head and was mumbling, "one of these days, one of these days..."

James tiptoed into the hallway and picked up the baby. "Hush baby, hush baby," he said. "If you stop crying, I'll take you for a pony ride on the moon, one of these days, I promise. You'll have a room of your own, and high red boots, and lots of money."

His sister stopped crying. James saw that she was asleep. He climbed into bed.

Father said, "James, you put the baby to sleep. Thanks!"

"How did you do it?" asked his mother.

(10) James peered up at the cool round face of the moon. "I promised her that one of these days, one of these days..." But he didn't finish what he was saying because he was asleep.

APPENDIX B

Sample Retellings

Negro - New York

1. Named James

2. One of these days take you for a pony ride. Baby was crying.

3. The dream.

4. Money money.

5. They putting it in piggy bank.

6. She been crying.

7. The last dime.

8. Cry faster and faster, faster.

9. He had his doll baby.

10. He's sleeping.

b-2

Negro - California

1. James...he gonna take his little girl to the moon.
2. He, he took um to the moon and then and then he said he was gonna take his little sister.
3. And he whispered in his ear, he whispered in his ear, and then he heard his sister, his little baby sister crying in the house. Then he said, "Don't cry little baby. I'll take you for a walk on the moon with the horse."
4. He dreaming. He dreaming, he dreaming to get his little baby sister to take her to the moon and then bring her back. He dreamed his little baby sister.
5. And then dimes fall down for the moon from the sky. And then they was a gettin' dimes, and then they put them in the piggy bank.
6. He putting the money up, up in the pig. He said, "more, more, more.' She got a whole foot of money in her hand, hand, a whole lot of money in her hand, go more than her...and then, and then, and then he said "let me' have a penny" He said "Don't cry James, don't cry."
7. Then he said, "More, more, more, more and she said, and she said "Let me keep that dime' and then he said "You many keep that it".
8. He took her to the moon, his baby sister. They going back home, and then (ain't no more pictures back there) and then he gonna take him to the moon and then he comes straight back, and then he came home. He came home.
9. Now, now he dreamed, and then he put his baby to sleep then and...She was crying in the hall. Then father said "Now you put him to sleep" and he said, and then he said, 'I guess he said "I took her to the moon."
10. Then he went to sleep.

b-3

Puerto Rican

1. "Hey James." Hey Pop, what the moon, the, the moon, the horse?" He say, "All I know the moon like over horse?"
2. He buy him one day. He take the horse, and he mean he found the horse and he buy another horse. And he see um... the moon.
3. He getting up to sleep in the???. His brothers was sleeping, his mother was sleeping. HELLO!!.
4. And one day they was happy and then they was sad.
5. They find lots money. The money, lotta money.
6. They find more money, and they look in the bank, say, "More more, more money."
7. And then I wish I would have, she say to ... John...What's his name again? James. She said, "I wish I would have this doll...this penny". He said, walk right you can have it".
8. And one day they go, they say James, Hurry faster, faster, faster.
9. He say, "One day I can take you up to the moon with, up...
10. And then he go to sleep.

b-4

Mexican

1. Alli una luna...El papa le compro un caballo...Le dijo su papa "que era luna que esta alli, bien clara papa. El dijo, que le iba comprar un caballo.
2. Le, le habia compra (DO) un caballo estaba cinco anos...Le dio el dinero al senor, se llevo el muchachito el cabballo Se fueron pa (ra) la casa.
3. Esta viendo la luna, esta despierto y su nina sta despierta, esta viendo la luna. La dice mirala lun a la luna y le fueron mune quita y unos de stas dian mira la luna.
4. Esta lloviendo...Estan llenando las botas de, de, de dinero Pesetas, dimes, y la munequ te dice "muchos dimes." Una alco-cuando acabo de, de llover viene una alancia queria todo ese dinero.
5. Lo est llenando de dinero. Y lo dice. Lo dice le puede, la alcancia "mas, mas dinero." Y la muneca dice, "Yo quiro yo quiero quedarme conesta sola."
6. Ya limpiaron todo...pero falta otros dimes. Y la otra puso un ___. Y van hacer que ella___. Todo el dinero.
7. Anda en la luna con el cabillo. Y dice la muneca, mas, mas recio." Luego empezo a llorar.
8. Le acabo de llorar los y luego le acabo de llorar se recio.
9. Estaba llorando, y lo le dice, "unos de estas dias vamos pa (ra) la luna con mi caballito. Te prometo que si."
10. Ahora esta viendo la luna con su clara, clara, clara, cara.

Navajo

1. His father...something he asks for.
2. The doll said faster faster.
3. Later to the moon we'll go there we'll stay.
4. The rain...and in the water they ran.
5. The money in the grass they dropped.
6. Piggy said give me money.
7. Piggy said more money and the doll started to cry.
8. The doll said faster and faster and started to cry.
9. Later we'll go to the moon he said.
10. The moon he looks at.

APPENDIX C

Story Retelling Scoring Sheet

Name__________________________Age Grp.____Story Type____Race_____Sex_______

Pict No.	A. No.phrases per picture	B. DIALOGUE No.phrases per speech	Identity of speaker	R	Wr	Out of Context Rel.	Non-Rel.	In Context
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
TOTAL								

	C. DESCRIPTIVE PHRASES						D. SEQUENCING		
	Things in Context	Things out of context rel.	non-rel	mood in context	mood out of context rel	non-rel	story dream story	doll-sister	asleep awake asleep
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
TOTAL									

COMMENTS:

Name____________________

E. EPISODE COUNT

pict. no.	Within picture	no. referred to	Sequence of episode		Anticipation of picture		Anticipation of episode	
			Yes	No	Yes	No	Yes	No
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
TOTAL								

F. ACTION

pict. no.	No. phrases per picture	identity of actor		In Context	Out of context	
		R.	Wr.		rel.	non-rel
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
TOTAL						

COMMENTS:

Name________________________________

G. PICTORAL DESCRIPTIONS

Pict. no.	Stimulus derived events	story rel. inferred events	details not in text	exact quotes	exact phrases
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
0.					
TOTAL:					

COMMENTS:

APPENDIX D

Book Questionnaires

The following is a questionaire designed to record various aspects of the reading readiness program in use in your classroom and the reactions of the children to same.

I. Class description

A. Characteristics of Classroom.

1. Number of children in class_________
2. Half session or full session?_________________
3. Pre-kindergarten or pre-first grade?_______________
4. Ethnic groups represented among children:____
5. Number of adults in the classroom:

Teachers_____	Volunteers_____
Paid Aide_____	Parents_____

B. Books:

1. List of books in use with the children:

   a. Those on display at all times:

   b. Those brought out for special occasions:

2. How often are the children read aloud to?
3. Is the class read aloud to as a whole
   Are individuals read to?
   Upon what does the decision depend?

4. Describe the setting in which reading takes place (seated in a circle, at tables, teacher on chair, children on floor or on chairs etc.):

5. Are the books easily accessible to the children?
   Where are they located?
   Separate library corner or throughout the room?
   Describe:

6. How is the book to be read aloud chosen?

7. Is a book read aloud more than once?
If so, is it requested by the children for a second reading or selected by the teacher?

C. Use of books

1. Is there discussion of books that have been read? How do these discussions arise? Are they related to experiences of the children at school? At home? Describe:

2. Describe any uses to which books are put in your classroom that have not been tapped in this questionnaire:

3. Is there dramatization of themes presented in books?
Are special props used? Describe:

4. Do children go to the books by themselves?
How many of them? How often?

5. Describe the familiarity with books the children displayed at the beginning of the program. What clues do you base this on?
Have there been any changes? Describe.

6. List five most popular books:

   a. popular with children

   b. provoked verbal reactions or dramatic play:

   c. served as a springboard for specific learning. Describe:

7. Describe the reading readiness program and the children's reactions to the stories, illustrations and uses of them.

II. Book description

A. Evidence of enjoyment.

1. Attentive listening______________________________

2. Facial expression______________________________

3. Verbal comments (May prompt by asking questions like -- "I'm going to read one of these stories again, which would you like?)________

4. Laughter and smiles________

5. Imitative gestures or language during or immediately after reading of book.________

B. Evidences of negative responses.

1. Restlessness________

2. Bored Expression________

3. Negative verbal comment________

4. Irrelevant remarks________

APPENDIX E

Operation Head Start Behavior Inventory
Modified Scale

Agression:

1. Has little respect for the rights of other children; refuses to wait his turn, usurps toys other children are playing with, etc.

2. Responds to frustration or disappointment by becoming agressive or enraged.

3. Is often quarrelsome with classmates for minor reasons.

4. Emotional response is customarily very strong; overresponds to usual classroom problems, frustrations, and difficulties

Verbal-Social Participation:

1. Talks eagerly to adults about his own experiences and what he thinks.

2. Likes to talk or socialize with teacher.

3. Is eager to inform other children of the experiences he has had.

4. Asks many questions for information about things, persons, etc. (Emphasis here should be on questions prompted by genuine curiosity rather than bids for attention.)

Timidity:

1. Is usually carefree; rarely becomes frightened or apprehensive.

2. Often keeps aloof from others because he is uninterested, suspicious, or bashful.

3. Is constricted, inhibited, or timid: needs to be urged before engaging in activities.

4. Often will not engage in activities unless strongly encouraged.

Independence:

1. Tries to figure out things for himself before asking adults or other children for help.

2. Appears to trust in his own abilities.

3. Goes about his activities with a minimum of assistance from others.

4. Does not need attention or approval from adults to sustain him in his work or play.

Achievement Motivation:

1. Seems disinterested in the general quality of his performance.

2. When faced with a difficult task, he either does not attempt it or gives up very quickly.

3. Is lethargic or apathetic: has little energy or drive.

4. Has a tendency to discontinue activities after exerting a minimum of effort.

APPENDIX F

Parent Interview

A. Many parents have told us that Headstart seems to be a good experience for their children. How do you feel about it?

B. Does your chid talk about the school (or Headstart?)

C. Does he seem to enjoy it?

D. Does your child talk about the teacher?

E. Child in relation to other children in the family

Does he have older brothers? How many____ages________________
Does he have younger brothers? How many____ages________________
Does he have older sisters? How many____ages________________
Does he have younger sisters? How many____ages________________

F. Do your children spend a lot of time with each other? (Perhaps on week-ends)

G. Mothers often tell their children "your best friend is your sister or your brother," do you feel this way?

H. Which of your children spend a lot of time with the other members of your family? (open-ended)

I. Are your children and their cousins friendly? Explore further.

J. What are your child's favorite activities at home? (Probe generally, e.g. "Playing at what?" Do not supply specific examples to parent.

K. Which of the children in the family seem to be particularly close to each other.

L. What does your child like to talk about most? Does he talk about it to everyone? His parents? Other children?

M. Is there anything in yourchild's talking that bothers you?

N. What kinds of things does your child do that pleases you most?

APPENDIX G

Significant Intercorrelations between Story-Retelling Measures

Variable I	Variable II	r
Action Phrases	English	.2890
	Navajo	-.2263
	Time	.3120
	Time/Phrases	.3270
	Phrases	.6740
	Words	.6466
	Words/Phrases	.4372
	Short pauses	.5340
	Long pauses	.6523
	SD	.4528
	SRI	.2507
Descriptive Phrases	Story version	-.1806 (Negro vs. other)
	Time	.1687
	Phrases	.2373
	Words	.1829
	Long pauses	.2030
	SD	.4235
SD	Time	.1885
	Time/phrases	-.2565
	Phrases	.4224
	Words	.4037
	Short pauses	.2986
	Long pauses	.3713
SRI	Time	.1699
	Phrases	.2742
	Words	.5484
	Words/phrases	.3909
	Short pauses	.3485
	Long pauses	.5239
Words/Phrases (mean phrase length)	Age	-.1675
English	SES	.1515

APPENDIX H

"Non-Kit" Books Popular with Children

ABC Book
Animals in the Zoo
The Apple Book
Are You My Mother
Ask Mr. Bear
Bambi
The Barnyard Book
Barto Takes The Subway
Big Animal Book
Billy Goats Gruff
The Book about Dinosaurs
Book of Nursery and Mother Goose Rhymes
Bozo the Clown
Caps for Sale
The Cat Book
The Cat in the Hat Comes Back
Chicken Little
Childcraft, Vol. 1 and 3
Cinderella
Come Play House
Danny and the Dinosaur
Davey's Horse
The Farm Book
Fire Engine Book
Fuss Bunny
Go Dog Go
Green Eggs and Ham
Green Eyes
Hansel and Gretel
Horton Hatches the Egg
I Like Red
I Play at the Beach
I Want To Be a Cowboy
If I Ran the Zoo
Katy No Pockets
Ladybug Hitchhikes Home
Last One Home Is a Green Pig
Little Brown Bear Series
The Little Engine That Could
The Little Fireman
Little Miss Muffet
The Little House
Little Peter Cottontail
The Little Red Hen
Little Red Riding Hood
Miss Mugs
My Dog is Lost
My First Book
Nobody's Puppy
The Noisy Book
Once Upon a Time
Peter Pat and the Policeman
Pretzel
The Rabbit Book
Rin Tin Tin and Rusty
The Runaway Bunny
The Shadow Book
The Three Bears
The Three Little Pigs
Tim Tadpole and the Great Bullfrog
Tuggy the Tugboat
The Ugly Duckling
Umbrella
The Up and Down Book
A Walk in the City
What is a Shadow
When I Grow Up